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## ORIGINAL LECTURES.

### FISTULÆ COLLI CONGENITÆ.

*A Clinical Lecture, delivered at the College of Physicians and Surgeons, New York.*

BY GEORGE M. LEFFERTS, M.D.,

CLINICAL PROFESSOR OF LARYNGOSCOPY AND DISEASES OF THE THROAT.

GENTLEMEN: A chance presents itself to-day of demonstrating to you a very rare case, and, in connection with it, of calling your attention to a very unusual subject. I do both with pleasure, and congratulate you and myself upon the opportunity, for although the condition on which I shall lecture to you must perhaps be regarded from a practical point of view as a curiosity only, still its inherent interest, involving as it does a study of the laws of human development, the great rarity of its occurrence and the paucity of its literature, hence the general unfamiliarity with it, render it one of more than passing scientific value, and one with which it is desirable that you should at least have a cursory knowledge. To-day, the chance occurs of acquiring it. I accept and utilize it for you. It may speedily fall to your lot in practice to meet with such an instance as that now before you; you must meet it with understanding, and in preparing you to do this, I likewise prepare you to appreciate your good fortune in having such a rarity thrown across your professional path to enliven it.

A strong and well-formed young man presents himself for our inspection. As far as we can see, he is free from any marked deformity or congenital malformation, and he assures us that this is also true for those parts of his body which are covered. This is an important point, for the congenital defect of the neck, which will claim our special attention, is not infrequently associated with malformations of other parts. He has visited the clinic for the purpose of having an ordinary naso-pharyngeal catarrh treated, and, while detailing his symptoms, has incidentally called attention to the peculiarity of his neck. He knows that something is wrong, but the condition having been present as long as he can remember, and giving him no trouble, he has never paid any special attention to it. We, appreciating its interest, will do so. Let us examine; you will have to look closely. A minute opening, no larger than a pin's head, upon which I now place my finger, is located, as you see, to the inner border of the sterno-cleido-mastoid muscle, upon the right side, and a little above the level of the cricoid cartilage. As the patient swallows, you notice that it is drawn upwards and inwards, and becomes slightly funnel-shaped. It is a small, round perforation through the skin, with smooth, flat edges; looks indeed very much like the opening that a large pin stuck through a bit of paper would make. There is no redness, no swelling of the surrounding parts, nothing that would attract special attention to the little opening. As I press from above downwards on the neck, a drop of clear, viscid mucus exudes from its mouth, and separating the lips, as I can slightly do, I see a pink mucous membrane. How far inwards or in what direction does the canal, of which this is evidently the mouth, extend? This question I can only answer after using a probe, and of necessity a very fine one. Watch now as I pass it; it at once takes a

direction upwards and slightly backwards. With some little manipulation, but no force, I cause it to pass along the side of the thyroid cartilage, then backwards towards the angle of the jaw; here it stops; and the patient, who has meanwhile complained of a tickling in his throat, coughs. This would lead me to suppose that perhaps the point of the probe had passed into the lower pharynx, but of this I am not sure. I could not see it there when I looked with the laryngoscopic mirror a few moments ago, after passing the probe, as I have just done before you—and again I seem to have reached the end of the fistulous tract—and entered a *cul-de-sac*. I diagnose the fistula then as an incomplete one, having an external mouth only. I might, in order to prove this view, inject the sinus with some solution, colored or otherwise prepared, so as to be recognized or tasted by the patient, if it entered the pharynx through an internal opening, but I judge it to be unnecessary. What are its precise direction and relations? The probe can be felt in the canal throughout the greater part of its course; this helps us to decide; and judging from the known direction taken by this form of fistula, I know that it has probably passed first under the deep cervical fascia, then along the outer border of the thyroid cartilage, parallel with the sterno-mastoid muscle, thence above the sheath of the great cervical vessels, under the digastric muscle and above the hypoglossal nerve, to somewhere near the posterior border of the palato-pharyngeus muscle. Had it continued its course—had the case been one of complete fistula, with internal as well as external mouth—the lateral pharyngeal wall would have been perforated just here, and the inner mouth of the canal been found perhaps by a sharp eye, just below the pharyngeal orifice of the right Eustachian tube. I now withdraw the probe, and, on feeling for the fistulous tract, discover its lowermost portion easily by the sensation conveyed to my finger of a hard, thick cord beneath the skin. I move it slightly to and fro. This size is not due to the calibre of the fistula alone, but more especially to the dense connective-tissue adhesion of the little canal to the surrounding parts. The fistula itself is small, with thin, elastic walls, and lined with mucous membrane. It is wider within than just at its mouth, but still it is very small.

I do not know that we can gain any more information by further examination. Let us recapitulate the results already obtained, and see in what position they place us as regards the question of diagnosis. We have demonstrated the presence of a small, narrow, fistulous tract, connecting with surrounding parts, and extending upwards from the region of the cricoid to somewhere near the right lateral and lower pharyngeal wall; that here it terminates in a *cul-de-sac*; that its mouth is minute, rounded, and shows no signs of irritation; that its presence is unaccompanied by any marked subjective symptoms; and that the lesion is congenital, or at least has existed since the patient's earliest recollection. If I eliminate now one or two conditions with which the present one might be confounded—mainly, salivary, tracheal, and glandular fistulæ—I shall be ready with my diagnosis. Salivary fistula it cannot be—its position and course forbid; moreover, its secretion, slight in quantity and viscid, is widely different from saliva. Tracheal fistula (congenital) is rare; even if it ever occur, the fistulous

canal in this case evidently does not communicate with the air-tract. Glandular fistula requires a moment's more thought, for it would be most easily mistaken; but no. A glandular fistula—one originating in the degeneration or suppurative of an enlarged lymphatic—is not uncommon in the neck, but there is nothing congenital in its character; it differs in its discharge, in its appearance, and in its being associated with other strumous indications from the present case. The clinical history allows us to at once dismiss any thought of the fistula being due to injury of neck, disease of the laryngeal cartilages, or the like, and I hesitate no longer to announce to you that the case is one of incomplete, with external mouth, congenital fistula of the neck—technically, a cervico-branchial fistula—the *Halskiemenfistel* of the Germans, although it has never before been my fortune to meet with an instance.

Let me now, using our case as the clinical illustration, review briefly for you the interesting subject of congenital fistulæ of the neck. Two forms only exist—aerial fistulæ, a term which explains itself, and cervico-branchial fistulæ, of which I shall speak more precisely in one moment; of the first, I need not say much; indeed, there is not much to say. Fistulous openings, or, more rarely, fistulous tracts, communicating directly with either the larynx or trachea, and existing only as the result of an arrested development of the primitive canal—congenital, in other words, in their origin—are extraordinarily rare. The small, round, external mouth of the fistula always lies in the median line of the neck at some point, an important diagnostic difference from the opening of the cervico-branchial fistula, which is always, or with very rare exceptions, located laterally or bilaterally; and I may here again call your attention to the fact that the former always opens into the air-tube, the latter never, always into the pharynx—in either case, of course, if it be complete. Mark now the obscurity which envelops the subject. A congenital, aerial fistula, communicating directly with the larynx, is, it is said, unknown. A few cases are reported, but are doubtful, in which a complete fistulous tract commenced over the lower edge of the thyroid cartilage, or over the middle of the upper tracheal ring, and extended thence to a point above the upper border of the larynx, where it entered the air-tube. In one instance only has the tract extended downwards, and entered the trachea. On the other hand, instances are more common—if the term common can be applied to such a rarity—where an incomplete fistulous passage commencing in the median line of the trachea, lower down, extended downwards towards the *manubrium sterni*, and ended in a *cul-de-sac*. But, really, the question is of little practical importance; little is absolutely known about it, and we need not dwell upon it. The very possible existence of the condition is denied by some authors.

I turn then to the second variety of fistula, the cervico-branchial. The subject is much more interesting, but my limited time will oblige me to curtail much that I should like to say to you, especially concerning the development of the branchial arches in mammals, a correct understanding of which process is necessary for the subsequent explanation of the abnormalities under notice. I can but condense for you the information that is to be gained by the study of an elaborate article by Cusset, and this I do, first acknowledging my indebtedness to him, and my admiration for his masterly essay.

The face and prevertebral portion of the neck, he tells us, are developed in all vertebrata at the expense of a branchial apparatus composed of a series of parallel arches—four in number—separated by clefts; in

man, this condition is transitory only—the morphological changes, by which the arches and clefts disappear, are subject to regular laws and any causes hindering the development and closure of these arches tend to make permanent some transitory condition; hence, numerous abnormalities from monstrosities to simple fistulæ and cysts, of which latter, I cannot speak to-day—I confine myself to the fistulæ alone.

The arrest of development, which gives rise to the fistulous tract, may occur along any of the lines of clefts between the branchial arches, but the cleft usually at fault is the fourth or that below the fourth arch, and the line along which most of the abnormalities have been observed, corresponds with the anterior border of the sterno-mastoid muscle. In most cases, also, the external orifice was situated just above the episternal notch, and the sinus has run thence upwards in the manner that I have described in speaking of the case before us—terminating in either one of the two ways that I have mentioned. Along the lines of the three upper clefts fistulæ occur more rarely, and the orifice usually selects a definite position in each cleft. When the third cleft is at fault, the origin of the fistula is usually found in the neighborhood of the thyroid cartilage, as in our case. If the second, at the great cornua of the hyoid bone; and if the first, along the edge of the lower jaw or at its angle.

Now, as to concurrent abnormalities: Do they exist in such cases? Yes, but as a rule only, I believe, when the arrest of development affects the first cleft, or is between the first and second branchial arches. The auditory apparatus is developed here to great extent, and deformities of the ear and deafness sometimes accompany the branchial fistulæ; abnormalities of the lung, hare-lip, and cleft-palate have also occasionally been noticed. The hereditary character of the lesion is always marked, pronounced when the fistula is complete. Sex has no influence.

Bear with me now, for a few minutes longer, while I allude to certain points in connection with these lesions, which are of importance and will perhaps be of more interest to you than those of which I have just spoken. I shall be brief. From what has been said, you have learned that a branchial fistula may be, (1) complete; (2) with external orifice only, this is the commonest form; and (3) with internal orifice alone. The latter class, let me say, is not only rare, but is doubtful. A diverticulum, in the very few recorded instances, has existed from the side of the pharynx, it is true, but this may have been only an œsophageal hernia, and not an incomplete fistula; the question is difficult to decide.

Some figures that I have here jotted down give additional and valuable facts. They relate to the whole number of cases collected by Cusset; since the date of his essay, I may say but two or three are reported, as far as I am aware, in all certainly less than one hundred instances are recorded in all literature.

Of the cases of complete cervico-branchial fistulæ, 18 are referred to, or 23 per cent. of the whole number. Cases with external orifice alone 52, or 69 per cent. of the whole, proving the statement that this is the commonest variety. Of those with internal orifice, only 5, or 8 per cent. of the total, but these—as I have told you—are doubtful. As regards their location, in 25 per cent. the fistula was bilateral, in such cases the fistulæ converge as they ascend in the neck, in 46 only on the right side, in 17 on the left, and 8 were median—a rarity which complicates the diagnosis, unless care be taken to explore the tract thoroughly, and differentiate it from that of an aerial fistula. The figures also show that the hereditary character of the lesion was marked (30 per cent.), and that if this tendency existed, the fistula was usually a complete one.

The question now arises, and it is the last to which I shall call your attention: Shall such fistulæ be surgically interfered with, or shall they be left severely alone? Much depends, of course, upon the nature of the individual case. Occasionally the obstinate persistence of the fistula gives rise, not only to a deformity which is annoying to the patient, and for which he will be likely to seek relief at your hands, but it may be to more serious symptoms; such have been reported. If the external orifice closes, and closure of one or the other orifices of the fistulous tract, in the course of time, does not appear to be unusual, accumulation may take place somewhere in the sinus and give rise to severe pain, aphonia, and epileptic seizures, as well as interference with deglutition or with respiration; the latter either directly by pressure on the trachea or larynx, or, it may be added, by involvement of nerve-filaments in the part irritated: for it is a curious feature, that in several of the instances reported, interference with the fistula excited irritability of the bronchial mucous membrane.

In such cases, but I conceive that they are rare, it may be necessary to effect the obliteration of the whole sinus; ordinarily they may be left alone, perhaps, my experience with them is not great enough to enable me to judge; certainly in the present case this is the advice that I shall give the patient. The earlier attempts to effect the closure of the sinus by means of nitrate of silver in substance or injections of a solution, were unsuccessful. A permanent or successful cure, can only be attained by complete destruction of the mucous membrane lining the whole canal, and this is confessedly difficult. Complete fistulæ are the most intractable; and the danger always would be, that the outer opening might be closed, and the inner remain, converting the case into one of fistula with internal mouth, a condition more dangerous perhaps than the original disease. Iodine injections have effected a partial cure, by causing the closure of the small inner orifice in complete fistulæ; but it must be added have, in more than one case, caused also alarming symptoms. Complete ablation of the mucous membrane of the fistulous tract, appears to be the most successful procedure, as I have said, a bougie being used in the sinus as a guide for the knife; Weinlechner and Sarazin have thus happily operated. But remember, gentlemen, that the close connection of the fistula with very important blood-vessels and nerves, causes such an operation to be more or less of a hazardous one. This is also true of the use of the galvano-cautery, and I feel that I am giving you good and sound advice, when I caution you as I now do, to pause, especially if you should meet with such an instance of the affection as that now present, before you resort to the reckless and inconsiderate use of such heroic means—"Discretion is the better part of valor."

## ORIGINAL ARTICLES.

### THE WEAK POINTS IN A LISTER DRESSING, AND THE ADVANTAGES OF CORROSIVE SUBLIMATE AS AN ANTISEPTIC.

BY ROBERT F. WEIR, M.D.,  
SURGEON TO BELLEVUE AND THE NEW YORK HOSPITALS.

(Read before the New York Surgical Society, April 10, 1883.)

It must be admitted by the most devoted of the advocates of Listerism, that the dressings applied with the strictest attention to all the details of this system, not infrequently fail in controlling the progress of putrefaction. This is the case, not only

in a severely lacerated wound, but also at times in a comparatively simple one.

It is difficult in all cases to explain why this should be so; in many, no doubt, some error in the technique may have been committed by the surgeon himself; in certain other cases it must be assumed either, that the antiseptic itself, *i. e.*, the carbolic acid, is at fault or has been wrongly applied, or that the dressings are themselves imperfect in construction.

In connection with these two points, considerable vagueness has been encountered. According to Mr. Lister, who started with a solution of 1 part of the acid to 100 parts of water, the solutions to be employed now, are for the instruments, hands, etc., 1 part to 20; for the spray, 1 to 30; and for the sponges, etc., 1 to 40. Why should such diversity exist? What strength, in other words, is necessary to arrest or destroy bacteric life in a wound. Clinical experience has generally settled on the range of strength given by Lister, to wit, from two and one-half to five per cent. of the acid, but the application of laboratory tests does not apparently accord with this conclusion. For instance, in an article by Delacroix<sup>1</sup> it is stated that ten per cent. of carbolic acid is required to destroy bacteric life, and in the very careful and much to be admired investigations of Koch<sup>2</sup> it is likewise recorded that one per cent. solutions of carbolic acid are necessary for safe or sure disinfection, and that the anthrax spores were destroyed in a four per cent. solution only after three days, and in a five per cent. solution only after two days' immersion. These statements have been widely quoted, and have much embarrassed observers by their variance with clinical work, but on reference to the articles themselves, and particularly to that of Koch<sup>3</sup> "On Disinfection," published in the *Reports of the Imperial Board of Health* for 1881, there will be found a reason for the discrepancy. It consists in this, that the experiments have properly been conducted upon the spores of the anthrax bacillus as being the most resistant to disinfectants of all such micro-organisms. These spores are much more difficult to affect than the bacilli themselves. To show the influence of weak solutions upon the bacilli themselves, a number of tests were applied by Koch, by soaking silk threads in the juice expressed from the spleen of a mouse affected with anthrax bacilli, and then wetting them with one, two, three, and five per cent. solutions of carbolic acid for periods varying from two, five, ten, fifteen to twenty-five minutes; after these had been placed in a gelatine culture-glass, no signs of development occurred, showing that all life had been arrested. In the several preparations, however, of the same impregnated threads which had not been dipped in the carbolic solutions, there were to be found in the gelatine culture-glasses marked development of bacilli and even of spores. Again, a one per cent. solution of

<sup>1</sup> Archiv f. Experimentelle Pathologie, Bd. xiii. hft. 3 and 4, 1881.

<sup>2</sup> Koch, p. 242.

<sup>3</sup> Mittheilungen aus dem Kaiserlichen Gesundheitsamte, Berlin, 1881.



carbolic acid with an equal quantity of anthrax blood injected into a second animal proved innocuous, but a one-half per cent. solution failed to neutralize the poisonous blood. Similar observations were carried on in respect to less obdurate micro-organisms, including the micrococci found in septicaemia; and from a large experience gathered in this manner Koch formulates the statement that carbolic acid in one to five per cent. watery solution is a good disinfectant for those organisms which have not passed into the *Danerform* or the condition of spore growth; and that 1 part to 400 of water, *i. e.*,  $\frac{1}{4}$  per cent., must be *permanently* present to control life in the bacteria met with in wounds. Note carefully here the use of the words *permanently* present, and it must also be remembered that to produce this condition stronger solutions are of necessity to be employed.

More recently these experiments have been repeated, with a corresponding result, by Dr. Sternberg, of the U. S. Army, who has found, by the test of flask culture in reference to carbolic acid, that a 0.2 per cent. solution of this acid would so act on septic micrococci as to prevent development, but that a stronger solution was required for the micrococcus of ordinary pus. This observer, reiterating the remarks of Koch, that the resisting power of reproductive spores is far greater than that of bacterial organisms in active growth (multiplication by fission), says that the quantity of carbolic acid to be used as a germicide shall not be less than five per cent., for it is necessary, he states, to keep on the safe side, since we do not know whether all of the pathogenetic bacteria form spores or otherwise.

These considerations, which might be extended by debating more at length the steps of the various experiments, or by quotations from the observers, are sufficient to explain the satisfactory results that follow the present use of carbolic acid in the treatment of wounds, and to show us that the antiseptic has, in the main, hitherto been rightly used. In looking further for causes of error, some may perhaps be found in the imperfection of the dressings. Tests of the strength of the gauze employed revealed to me in January, 1880, that the strength of this part of the dressing varied much with its age. Gauze impregnated after Lister's formula, and kept in a tight box, wrapped up in rubber cloth, gave, at the end of three months, 1.44 per cent. of carbolic acid, and another specimen, similarly prepared and preserved, showed, at the end of three weeks, 1.82 per cent. These observations have been confirmed by Kopff, who found, on the second day after gauze had been impregnated, according to Lister's and Brun's method, that the former contained 2.61 per cent., and the latter 5.62 per cent. In the gauze sold in the shops, only one-half per cent. of carbolic acid was found. The gauze, when used, therefore, should be freshly prepared, for which purpose Brun's formula is the best:

R.—Resin, . . . . .	400 gr.
Carbolic acid, . . . . .	100 gr.
Castor oil, . . . . .	80 gr.
Alcohol, . . . . .	2 litres.

Another possible cause of failure in an antiseptic dressing is encountered in the catgut ligature. Made, as it is, from the intestine of a sheep, it is not to be wondered at that the possibility of infection thereby should have been considered. Few, however, have been the facts that confirm such a suspicion. Koch calls attention to this, and De Lauti<sup>1</sup> more recently repeats this caution, and quotes Zweifel, of Erlangen, who accused the catgut of being a cause of infection in wounds. Kocher, of Berne, also furnishes a case where apparently the septicaemia was due to this cause; and Volkmann reports two cases of malignant pustule from the inoculation by means of anthracized catgut.<sup>2</sup> In investigating this point, Koch has found, by careful experiment, that solutions of carbolic acid in oil or alcohol are absolutely inert in respect to their action on bacteric life, either on the spores or bacilli. He took solutions of one and five per cent. of carbolic acid in oil, and also pure oil itself, and tested them with the anthrax bacilli and other micro-organisms, and found that bacteric life was arrested in the pure oil at the end of six days. The same took place in each of the carbolized solutions. The same, moreover, occurred in the several experiments, where the bacilli were exposed to the air on gelatine. In other words, no influence was exerted by carbolic acid when mixed with oil. The bacilli lived as long in oil and oily solutions as in the condition of culture. When the *spores*, however, of the anthrax bacilli were introduced in the carbolized oil solutions, reproduction could be accomplished after three months' immersion. The same results were met with in oily solutions of thymol and salicylic acid.

In explanation of the antiseptic action of carbolized oil as a wound dressing, Koch, however, remarks that "When it comes in contact with substances containing water, as, for instance, the tissues of the human body, wounds, etc., then it undoubtedly gives up part of the acid to these, and in this way an antiseptic effect may be obtained. But this holds good only in cases where aqueous fluids come in contact with the oil. In all other instances, where dry substances, such as silk, catgut, instruments, etc., are to be disinfected by carbolic oil, not the least antiseptic effect is to be expected, even upon the most vulnerable micro-organisms." These investigations, it may be added, have been fully confirmed by those of Wolfhügel and Knowe in the same volume of reports. Kocher, of Berne (already quoted), also made sundry experiments bearing on this point. This surgeon placed ordinary catgut, with all the customary precautions, in sterilized fluids, which became turbid from bacteric development within twenty-four hours. He also found that if the catgut were steeped for twenty-four hours in the oil of juniper, and kept in ninety-five per cent. of alcohol, it would not develop bacteria in sterilized fluids.

I do not know of any experiments that will determine whether the chromic acid used to render

<sup>1</sup> Arch. Gén. de Médecine, March, 1883. "Les devices Evolutions des Iméments Antiseptiques."

<sup>2</sup> Deutsche Zeitschrift f. pract. Med., No. 18, 1877.



the catgut ligature more durable makes them at the same time aseptic, but we have information relative to sulphurous acid, which will be somewhat startling to the surgeons in this city, who have relied upon this gas as a proper disinfectant for their contaminated hospital wards. Two investigators, Koch and Wolfhügel, pronounce decidedly against sulphurous acid in gas, and in watery solutions as a disinfectant, *i. e.*, as an arrester of bacteric life. Koch says no real value can be claimed for it, and in none of the experiments conducted with it did it succeed in destroying all the germs present. The reliability of the tests of Koch and his assistants should attract attention to this point, as not only is this agent largely employed here in hospitals as above alluded to, but it is likewise recommended to the public by our health boards for disinfection after scarlatina, diphtheria, and other contagious diseases. I may remark, in passing from this portion of my subject, that the most reliable disinfectant for closed spaces was presented by bromine, and ranking a little lower was chlorine, the less expensive. Returning to the catgut, it must be admitted that, while thus open to the suspicion of a septic agent, yet the daily experience of surgeons has taught that its principal defect was in its unsatisfactory solubility. Since the addition of chromic acid and sulphurous acid to it, its durability in the tissues has been too much increased, and though the latter acid has permitted the catgut to be kept in a dry state and the oil thus avoided, yet I have found that it will not dissolve for twenty or thirty days, and that it often acts as a foreign body. Weakening both the acids has improved it somewhat, but my experience in this line has not been sufficient to speak yet with positiveness.

The probing of scientific research has in this way revealed to us some of the weak points of the carbolic dressing, but notwithstanding this and the earlier condemnation of the spray by Trendelenburg, Bruns, Mickulicz, Wernich, Duncan, and others, a verdict which is, however, not accepted by Lister, Nussbaum, Rydygier, Shiene, and their followers, Lister's dressing has remained until very recently the best for surgeons to employ, though other antiseptics, and notably iodoform, have given very satisfactory results in other hands. The volatility of the former antiseptic, and the toxic properties of both those named were decided disadvantages. Very lately an old remedy has appeared in this rôle of an antiseptic. This is the corrosive sublimate or the old bichloride of mercury—the mercuric bichloride of the newer nomenclature.

My first experience with this salt as a wound-dressing was obtained after reading an excerpt from the article of Delacroix, in which it was stated that corrosive sublimate in the proportion of one part to 2525 parts of water was an effective germicide—being 250 times more powerful than phenol or carbolic acid—with this imperfect datum I used it in the spring of 1882, in one part to 2000 of water as a dressing to three compound fractures of the thigh and six of the leg, with very satisfactory results. So much so that when I resumed my service in the New York Hospital, in November last, the

dressings were continued, but with some slight modifications; these were first, that it was found that the strength was insufficient—active bacteric life being at times found under the dressing—and also from the fact that a perusal of the large experience of Kümmel and Schede, of Hamburg, showed that a stronger solution was required, and that it was free from the risk of toxic effects. For of over two hundred cases presented by Kümmel, in only two were there any constitutional symptoms observed, and then only as a slight salivation. This surgeon says of the sublimate dressing, that the healing of wounds is accomplished with a certainty and uniformity unknown under the strictest Lister dressing; and in 212 extensive wounds, as recently treated by the sublimate solutions and peat dressings by Esmarch and Neuber, who recommend it strongly, there was no poisoning and only 3 deaths. In this number were 30 major amputations, 32 resections and osteotomies, 5 herniotomies, 14 cases of nerve-stretching, etc., and in only 11 cases was the dressing changed more than once. Bergmann, whose experience with the remedy has also been large, also lauds it. My own observation of the efficacy of the sublimate dressing, after I had properly achieved the correct method of using it, is yet comparatively slight, embracing four cases of necrosis of the foot and tibia; one amputation at the hip-joint; one amputation of the thigh; one amputation at the knee; one amputation of the leg; one amputation of the breast; two removal of tumors; one fixation of a movable kidney; one extensive laceration of upper thigh—died twelfth day of septicæmia; one subdeltoid bursa; three compound fractures of leg; with recovery in all except the case above noted. In two of the compound fractures, an aseptic condition was not preserved; in one of these the solution was too weak—1 : 2000; in the other a 1 : 400 peat dressing was used, although, by error, solutions of 1 : 100 were several times resorted to. No special local effects were produced beyond, in one instance, slight pustulation of the adjacent skin; no constitutional effects were noticed in any case.

Let me hastily indicate the mode of employment of this dressing. Carbolic acid solutions are used by Neuber, Kümmel, and Bergmann for the spray and for the instruments, and sometimes for washing out the wound. The sponges and compresses are wet with a solution of the sublimate, 8 grs. to the pint (solution No. 1). Silk, if used for sutures, etc., is dipped for two hours in an 80 gr. to Oj solution, and then permanently kept in the 80 gr. solution. Catgut, as used by Kümmel, is made by immersing it in an 80 gr. to Oj solution for twelve hours, and then it is wound on bobbins, and kept in an alcoholic solution of twenty grains to the pint, with one and a half ounce of glycerine added.<sup>1</sup> The gauze is prepared by immersion in a solution of 20 grs. to the pint of alcohol, with 3iss of glycerine. Drainage is accomplished by rubber tubes, or by spun glass, twisted or plaited. If sand is used as an ab-

<sup>1</sup> This catgut dissolves too quickly in a wound. Some recently used proved more satisfactory where—after the corrosive impregnation had been secured—the gut was dipped for two hours in a 1 to 1000 chromic acid, then dried, and kept.

sorbent, after being heated in a crucible it is mixed in the proportion of 1 lb. to 3j of sublimate, dissolved in 3ijss of sulphuric ether. The sublimated sand is put in thin cotton bags, of various sizes, from 12 to 40 cm. square, which have been frequently washed with green soap and soda, rinsed, and finally dipped in the 8 gr. to the Oj solution. Peat, sawdust, and other absorbents are also employed,<sup>1</sup> according to the judgment of the surgeon. It has been found, in my wards, that while pure sawdust has absorbed readily, yet a disagreeable, sour odor was often noticed, even where the underlying wounds were doing perfectly well.

A few words more will complete these necessarily incomplete remarks. The experiments of Koch evidently excited the surgeons of Hamburg, Würzburg, and Kiel to the use of the mercuric chloride as a surgical dressing, and as the results of this able investigation have not been very widely disseminated on this side of the Atlantic, I beg to summarize them here: After applying a number of tests similar to those employed in connection with a number of so-called antiseptics and disinfectants (a partial list of which is here appended—Table I), he found that simply moistening the anthrax spores (the most resistant of all, it will be remembered) with a solution of 1 part of corrosive sublimate to 5000 of water, destroyed them thoroughly and immediately; and the destruction would equally happen if they are immersed for a longer time in solutions as weak as 1 to 20,000. He then says that the sublimate is the only known disinfectant which succeeds by a single application of a few minims of a solution of sublimate of 1 part to 1000 in destroying the most resistant micro-organisms. He also furnishes us with a test as to the strength required in a wound dressing. There should be present in a dressing an excess of corrosive sublimate equal to 1 part to 5,000; this will be readily recognized by leaving a thin strip of polished copper for half an hour in the dressing; if the excess is present, an amalgam will show itself; this seldom occurs in a 1 to 10,000 solution.

Naturally with so potent a bacteric arrestor, the idea comes into birth—Cannot the internal administration of the remedy be utilized in germ diseases? Koch's experiments on anthracized rabbits by injecting sublimate solutions, however, were negative, Sternberg, estimating the blood in an adult of one hundred and sixty pounds to be twenty pounds, ascertained that the quantity of corrosive sublimate required to affect this amount of blood would be three and one-half grains, and believes that although one grain per diem is the maximum quantity which could be administered for several days, that a cumulative effect might be produced by its use sufficient to exert some restraining influence on the development of micro-organisms within the system.

The annexed tables, taken from Koch and Stern-

berg's papers, give an interesting *résumé* of the germicidal power of a number of agents, some of which have wrongly been relied upon:

TABLE I (FROM KOCH).<sup>1</sup>

— indicates life destroyed totally.

Sublimate corrosive, 1 per cent., in water, destroyed all bacteric life in . . . . .	1 day.
Permanganate of potassium, 5 per cent., in water, destroyed all bacteric life in . . . . .	1 "
Permanganate of potassium, 1 per cent., in water, had no effect at end of . . . . .	2 "
Osmic acid, 1 per cent., in water, . . . . .	1 "
Turpentine, oil of, . . . . .	5 "
Chlorine water, freshly made, . . . . .	1 "
Bromine, 2 per cent., . . . . .	1 "
Iodine water, . . . . .	1 "
Chloride of lime, . . . . .	5 "
Chloride of iron, . . . . .	6 "
Iodine in alcohol, 1 per cent., hindered growth only.	
Arsenic, 1 per cent., . . . . .	10 "
Sulphurous acid water, very slightly efficacious.	
Sulphuric acid, 1 per cent., growth hindered in . . . . .	10 "
Quinine, 1 per cent., . . . . .	10 "
Boric acid, 5 per cent., practically unreliable—spore growth only hindered in . . . . .	61 "
Borax, 5 per cent., no effect at end of . . . . .	15 "

TABLE II (FROM STERNBERG).<sup>2</sup>

Germicide Value of

Mercuric bichloride, . . . . .	one part in 20,000
Potassium permanganate, . . . . .	833
Iodine, . . . . .	500
Creasote, . . . . .	200
Sulphuric acid, . . . . .	200
Carbolic acid, . . . . .	100
Hydrochloric acid, . . . . .	100
Zinc chloridi, . . . . .	50
Tr. ferri chloridi, . . . . .	25
Salicylic acid, dissolved by sodium borate, . . . . .	25
Boric acid, . . . . .	No value.
Sodium borate, sat. sol., . . . . .	No value.
Sodium hyposulphite, . . . . .	No value.

(For the discussion elicited by this paper, see p. 502.)

## CARCINOMATOUS OSTEOMA OF THE FEMALE MAMMA.

BY SAMUEL W. GROSS, M.D.,

PROFESSOR OF THE PRINCIPLES OF SURGERY AND CLINICAL SURGERY IN THE JEFFERSON MEDICAL COLLEGE OF PHILADELPHIA.

MRS. —, seventy-four years of age, and the mother of seventeen children, discovered, in May, 1880, a tumor as large as a pea in the left breast, which gradually developed some of the signs of scirrhus carcinoma, such as extreme hardness, retraction of the nipple, and lancinating pains, without, however, deep attachments or involvement of the axillary glands. The entire breast was removed,

<sup>1</sup> Mittheilungen aus dem Kaiserlichen Gesundheitsamte, Berlin, 1881.

<sup>2</sup> Amer. Journ. of the Med. Sciences, April, 1883.

<sup>1</sup> The absorbing power of—

Turf is, . . . . .	80 parts water.
Sawdust—pine, . . . . .	55 " "
" cedar, . . . . .	44 " "
Bran, . . . . .	23 " "
Sand, . . . . .	14 " "

on the 10th of November, by Dr. Hunter McGuire, of Richmond, Va., who found a bony tumor loosely embedded in the organ, which he kindly presented to me.

The neoplasm was almost spherical, nodular, densely hard, and inelastic, and enclosed in a connective-tissue capsule, through which it was thoroughly isolated from the surrounding tissues of the mamma. On section, which could only be made with a saw, it measured three centimetres and a half in diameter, and the cut surfaces presented a pale, granite-like appearance, with white islets of fibrous tissue, which constituted about one-sixth of the entire mass, including a peripheral margin one millimetre in diameter for about one-half of its circumference.

Minute examination of sections treated with hydrochloric acid, conducted by Dr. H. F. Formad and myself, disclosed—as is represented in the accompanying drawing, made with the aid of the camera lucida, and kindly furnished by Dr. Formad—an osseous framework, the meshes of which were filled partly with a lymphoid tissue containing giant-cells, and representing young bone-marrow, and partly with glandular tissue undergoing carcinomatous transformation or completely converted into typical carcinomatous structure, *i. e.*, an alveolar fibrous stroma, containing cylinders or plugs made up of epithelial cells. At rare intervals the acini were normal.



The tumor was evidently, in the first instance, a fibroma containing glandular elements, or an adenoid fibroma, which was gradually being transformed into an osteoma, when the irritation of the plates of bone excited atypical growth of the cells of the acini, through which carcinoma was engrafted upon it. The presence of a fibrous capsule, whereby the neoplasm was isolated from the remainder of the mamma, was of itself sufficient to exclude the

idea of primary osteoid carcinoma; and this view is strengthened by the freedom from local recurrence and invasion of the axillary glands, as the patient remains well two years and four months after the operation.

As I have pointed out in the chapter on Fibroma in my *Practical Treatise on Tumors of the Mammary Gland*, ossification is a very uncommon transformation of a fibroma; and I may add that, as far as I know, the specimen now described is unique.

1112 WALNUT STREET, March, 1883.

## MEDICAL PROGRESS.

**INJECTION OF PEROSMIC ACID.**—PROF. WINIWARTER reports the case of a man with a soft sarcoma in the right side of the neck as large as a baby's head, and adherent to the vessels and nerves of that region. As it could not be operated upon, Prof. Winiwarter decided to practise injections of perosmic acid. For fourteen days he injected daily about three drops of an aqueous solution (1 to 100) of the acid, at the end of which time the tumor was completely broken down. The broken-down parts mixed with sero-pus, were evacuated by an incision, which rapidly cicatrized. One month after treatment was begun there was no trace of the tumor. The skin was intact, and there were no symptoms of local inflammation. This treatment was afterwards adopted in a similar case of sarcoma of the shoulder, in a number of cervical tumors, in cervical adenitis of scrofulous origin, etc. It was also employed in glandular tumors of a carcinomatous nature. The dose in some cases was as much as half a syringe-ful. Several years ago Dr. Moore used acetic acid in similar cases in the Middlesex Hospital.—*Gaz. Méd. de Nantes*, April 9, 1883.

**TOTAL BLINDNESS FROM CONCUSSION OF BRAIN.**—SURGEON A. PIERSON, M.R.C.S., records the case of an Indian cavalryman who fell from his horse while on parade, and sustained a concussion of the brain. From the first his eyes were closed, and he could only partially open them, the orbiculares being both firmly contracted. There was great pain in the head, and the pupils were found to be contracted. Photophobia prevented ophthalmoscopic examination. When he was able to open his eyes, it was found that he could only distinguish objects very imperfectly. This latter condition increased rapidly, and the patient finally became totally blind. On Jan. 1, 1883, eight months after the accident, he was still totally blind, and his general state bad. Mr. Pierson diagnosed hemorrhage from rupture of a vessel in the pia mater, occurring about the position of the optic commissure, with subsequent inflammation around the clot, and disorganization of the nerves.—*Proc. N. W. Provinces and Oudh Br. Brit. Med. Ass.*, Feb. 1883.

**DIAPHORETIC TREATMENT OF PUERPERAL ECLAMPSIA WITH HOT BATHS.**—DR. CARL BREUS, assistant to the clinic of Prof. Braun, in Vienna, in an article in *Archiv f. Gynäkol.*, Bd. xxi. Hft. 1, 1883, strongly advocates the treatment of puerperal convulsions by immersing the patient in baths of a temperature of 100° F. Details of sixteen cases are given, in thirteen of which the convulsions appeared at or near the beginning of labor. Craniotomy was performed in two, and the forceps used in four of these cases. In two cases, convulsions appeared in the second stage,



with one forceps delivery. One death occurred, due to pelvic abscess and peritonitis. Chloral hydrate was freely used in many of these cases, as was chloroform inhalation. After the hot baths, the patients were immediately wrapped in warm sheets and blankets, so as to promote free diaphoresis. As regards the mother and child; the result was, as it seems, satisfactory. All of the children were born alive except the two upon whom craniotomy was performed; and one death of the mother in fifteen cases is a striking result.

**MIASMATIC PROPAGATION OF DIPHTHERIA.**—DR. FORSTER relates the following cases coming under observation at the Children's Hospital, in Dresden, and which, in his opinion, go far to prove the miasmatic origin of diphtheria. Tuberculous boy, æt. 6, with no infectious disease, was brought into the ward on Nov. 18, 1881. On the following day he was taken with diphtheria and was immediately transferred to an isolated ward. In the ward in which the disease appeared first, two other cases appeared on the same day, and on the 9th of May following, eleven children developed diphtheritis. Two of these died; the remaining nine recovered. Four of these last cases made their appearance in rapid succession, but the remaining seven appeared at long intervals; yet there was sufficient evidence to show that they were due to a miasmatic influence. The patients were so quickly conveyed to an isolated ward, the iron bedsteads thoroughly washed and disinfected, and the mattresses disinfected and unused for so long a time, the walls thoroughly washed and disinfected with carbolic acid, and all the precautionary measures now in use so rigidly adhered to, that it is difficult to account for the persistence of the disease. In the spring of 1880 it was necessary to repair the floor of this ward, and at that time the disease again appeared. It seems almost certain that the propagating material was concealed in the dirt deposited in the grooves of the floor, and that the constant washing of the floor and subsequent drying of the dirt, had much to do with the reappearance of the disease at intervals.—*Medizinisch-Chirur. Centralbl.*, April 6, 1883.

**THERAPY OF OSSEOUS DEVELOPMENT.**—DR. J. C. THOROWGOOD points out that the mere administration of the necessary lime-salts is not the only thing to be considered in striving to improve osseous development. To give a big-bellied, pale-faced child, with acid dyspepsia (as shown by sour breath, furred tongue with red papillæ showing through, appetite often voracious, and confined or irregular bowels), phosphate of lime and iron, would only make him more uncomfortable. He should have alkaline aperients, diet should be regulated, excess of starch and sugar cut off, and exercise and salt-water baths ordered; then administer the remedies indicated. Of these, soluble hypophosphate of lime and chloride of lime are most useful, given in doses of grs. ij-ijj, in glycerine and water. The lacto-phosphate of lime is also valuable. Diet, however, is most important. The child must be made to eat slowly. Brown bread, oatmeal, and "second's" flour are preferable to "extra white."—*British Med. Journ.*, April 7, 1883.

**IODOFORM IN DIABETES.**—BOZZOLO, though at first disappointed with Moleschott's treatment of diabetes mellitus by iodoform, has recently tried it in two cases with better success. The daily dose was about grs. xxx, a much larger amount than was used in his first cases. In both cases the quantity of urine was lessened; in one mild case the glycosuria entirely disappeared; in the other, which was very severe, the sugar was diminished.—*Gaz. degli Ospitali*, Feb. 4, 1883.

**CONSTANT CURRENT IN BRONCHOCELE.**—MASSEI, (*Boll. delle Malat. dell' Orec.*), who has used the constant current in bronchocele, speaks of it as a remedy of high value, and draws the following conclusions: 1. The constant current, in simple hypertrophy of the thyroid gland, is a safe, speedy, and harmless remedy. 2. It merits increased attention among physicians. 3. Statistics do not furnish results of treatment beyond simple hypertrophy; in the cystic form, colloid degeneration and nodose hyperplasia, it is a more efficacious means than electrolysis. Massei uses from six to ten elements during a period of six to ten minutes.—*L'Imparsiale*, March 30, 1883.

**BROMIDES IN NAUSEA AND VOMITING.**—DR. CHERON (*Archives de Toxologie*) has found that great benefit results from the administration of bromides in an effervescing mixture in the persistent nausea and vomiting so often seen in women with uterine affections. His formula is: 1. Bicarb. potass., grs. xxx; water, f3ij; bromide potass., grs. xxx.—M. 2. Citric acid, 3j; water, f3iv; syrup, f3x.—M. S.—Add a teaspoonful of No. 1 to a tablespoonful of No. 2, and drink immediately. This dose may be repeated every half hour or hour, the quantity stated in the above formula being the maximum *per diem* amount. In localized pelvic peritonitis, this mixture often arrests the tendency to vomit, even in the acute stage.—*Medical Times and Gazette*, April 7, 1883.

**NEW PORRO OPERATION.**—On the 28th of March, PROF. PORRO performed another operation, at the St. Catherine's Obstetrical Hospital, of amputation of the gravid uterus by the Porro-Cæsarean method. The patient was a primipara, and near the termination of the pregnant state; there was great rachitic deformity of the whole skeleton. The child was healthy and well formed. On April 3d the patient was doing well—maximum temperature up to that time was 100.4°.—*Annali Univers. di Med. e Chirurg.*, March, 1883.

**CASTOR OIL AND GLYCERINE AS A PURGATIVE.**—MR. SLOPER recommends a combination of glycerine and castor oil, in equal proportions, as being an efficient purgative. The best form is that of a semi-solid, of which a small teaspoonful is an efficient dose; its effect seems lasting, and it does not need continued renewal. The compound may be flavored with lemon, almond, or any other agreeable flavor.—*Lancet*, Feb. 10, 1883.

**EPILEPTIFORM ATTACKS IN STRANGULATED HERNIA.**—M. CH. LIÉGEAIS reports a case of strangulated inguinal hernia in which the only symptoms were epileptiform attacks, repeated at short intervals. These could not be accounted for in any manner, and it was only when the patient was undressed that the real state of affairs was discovered.—*Gaz. Méd. de Nantes*, April 9, 1883.

**PILOCARPIN IN ASCITES.**—DR. MAX RICHTER has had excellent results, in two cases of hepatic ascites, from the use of muriate of pilocarpin in doses of gr. 1/6 to 1/4 twice a day. He gives whiskey in small doses to counteract the weakening effect of the pilocarpin. In the two cases referred to, it was necessary to tap several times, but the persistent use of the pilocarpin effected a cure.—*San Francisco Western Lancet*, April, 1883.

**A THIRD LORETA OPERATION.**—The third patient upon whom Prof. Loreta performed his operation of digital division of the pylorus, died of collapse in thirty-six hours. The case was almost hopeless, however, before the operation was begun.

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SATURDAY, MAY 5, 1883.

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## LEGISLATION AS TO COLOR-BLINDNESS.

The question of color-blindness in railroad and steamboat employes continues to be a living and very lively issue, between scientists and humanitarians on the one side, and politicians and thousands of their "constituents" (or *voters*), who object to being regulated, on the other. Dr. Jeffries and his co-workers, not only have to fight hard for every inch of advance, but find it no easy matter to hold the ground that they have gained. Two States only have been subdued, and the enemy have succeeded in abolishing the law in Connecticut, and are now advancing in force upon Massachusetts. The following list of questions addressed by the counsel representing the employes, before a Committee of the Massachusetts Legislature, to railway managers, will show the position taken:

"First, Is not a thorough and practical examination of employes for color-blindness and other defective sight on the signals in actual use a sufficient test for such qualifications?

"Second, If an employe is able to discriminate all forms and colors used in your signals, and is competent in all other respects, do you not consider him qualified for railway train service?

"Third, Is not the pecuniary interest of railway corporations in the safety of their passengers and trains an inducement for them to be certain of the ability of their employes to distinguish signals?

"Fourth, In your judgment is there a necessity for periodic examination of regular employes for color-blindness or defective sight?

"Fifth, What, if any, accident has occurred on

your road, or to your knowledge elsewhere, by reason of color-blindness or defective vision."

It has been shown so often that a color-blind person may, under favorable circumstances, make very correct guesses at the color of these flags and lanterns, by means of the difference in the *intensity* of light in which they appear to him, that the subject seems almost too trite to be mentioned. A red light will appear darker than a green one to a red-blind person, while a green one will appear darker to a green-blind. "Every modification of the intensity of the light is, for the color-blind, a change in color," and may enable him generally to decide correctly, particularly as to familiar objects. This is well illustrated by the case of an engineer, who, when tested with flags in a room ninety feet long always answered correctly, but when the flags were taken to a greater distance outside, where they could be seen from a window, and the red one was placed in front of some foliage, unhesitatingly pronounced it green. Holmgren pointedly asks, if any railroad president would be willing to take the responsibility of running a train if the condition of his sight were such that a feeble light meant danger, a medium one caution, and a strong one "road clear." What is needed, is the quick and certain perception of colors that only normal color-sense can give.

As to trusting to the voluntary action of railway corporations—if the fact that not one in the country paid the slightest attention to the subject until stirred up to it by Dr. Jeffries, were not a sufficient answer, some of their unguided efforts in this direction would make it complete enough. When Dr. Carmalt showed his orders to the President of the New Haven and Northampton Railroad, he was informed that the employes had all been carefully examined by the assistant superintendent, and there was not a color-blind man on the road. Dr. Carmalt, however, proceeded with his work, and found nearly 'double the average number of color-blind. It was found in Connecticut that complaints were as loud and numerous against the "flag and lantern test," as against the methods of the scientific enthusiasts; and the legislature, not succeeding in devising a test that would meet with the approval of those who failed to pass it, ended the discussion by abolishing the law.

As color-blindness is in a large majority of cases congenital, and when it occurs as a symptom of disease is usually accompanied by other defects of sight, periodic examinations, with reference to it alone, may be much less essential than the original testing. But railroad men, like the rest of mankind, are certainly subject to diseases resulting in color-blindness and also in those defects of vision which entirely unfit them for their work; while,

unlike those engaged in many other occupations, the engineer may keep his secret locked up in perfectly normal-looking eyes until it manifests itself in disaster. A man who applied at the Wills' Hospital with optic atrophy had scarcely vision enough left to drive a cart through the streets in daylight, but had been running express trains, filled with hundreds of confiding passengers, at night, until he could no longer bear the strain of mental anxiety, and was relieved at his own request. It was enough to make each particular hair stand on end to hear him tell of his experience.

The assertion that no accident has, in this country at least, been positively known to have resulted from color-blindness, is considered a very strong argument. We have not been advised as to just how many crushed victims must be unmistakably offered, before it will be in order to take measures to prevent further sacrifices; but it would seem that, to an unbiased mind, it would be sufficient to show that such things are not only possible, but highly probable. The papers recently reported the case of a man who was frozen to death while driving on a bitter cold night, but reached home without damage to horses or wagon, and with the reins clutched in his stiffened fingers; still, a nervous traveller would scarcely care to trust a driver of that kind. The statement, however, that no accident can be proved to have resulted from color-blindness is not correct, as can be shown, in one case at least, by the following extract from the report of the Railroad Commissioners of Connecticut for 1881: "A few years ago, a collision occurred near Norfolk, Va., between the tugboat Lumberman and steamship Isaac Bell, resulting in the loss of ten lives. A coroner's inquest was held, without definite result; the general impression being that one or the other of the pilots was drunk. There could be no proof of this, however, and the pilots were released. The pilot of the tugboat Lumberman was examined by the surgeon of the Marine-Hospital Service during the current quarter, and found to be color-blind. A rumor has reached the Marine-Hospital Bureau that the pilot of the Isaac Bell is also color-blind." Mr. Thos. F. Wilson, in a communication to the *Chicago Railway Review*, states that he has kept a record of accidents to trains and vessels for some years, and gathered all the information he could in reference to them, and is convinced that a large proportion of them were the results of color-blindness. There is good reason to believe that the famous Norwalk disaster was due to the same cause. It was proved to the satisfaction of the jury and of all concerned that the engineer looked for the signal and thought he saw it; and, in the entire absence of any other plausible theory, it has been thought that he mistook

the green foliage of a cedar tree, trimmed nearly to the top, for the red ball that it was customary to display when the draw was closed. This same engineer had met with a serious accident several years before, and after subsequently meeting with several minor mishaps, he put an end with his own hand to a life that seemed to him to be the sport of an adverse fate. Is there not a high degree of probability that two minutes with Holmgren's worsteds would have prevented all this tragedy?

The Massachusetts Legislature passed a law in 1881 compelling railroad companies to have their employes examined for color-blindness and other defects of vision, and requiring re-examination at least every two years. The law did not define the test, but the worsteds have been used. An effort is now being made to induce the Legislature to forbid the use of any other tests than railroad signals, and to do away with re-examinations. The committee to which the subject was referred has reported against the former proposition, but in favor of the latter. Even should the action of the Legislature be favorable, however, it must take the chances of a veto, which the well-known ocular defect of the present Governor makes more than probable.

#### INHALATION-TUBERCULOSIS.

GREAT stress is laid by those who favor the view that tuberculosis is an infectious disease, upon the results of the so-called inhalation experiments, priority in which is claimed by TAPPEINER, of Meran, who first made them in 1877. Recently, in consequence of Spina's failure to give them due consideration in his work on tuberculosis, Tappeiner has republished his results in an open letter to Spina (*Wiener med. Presse*, March 18th). Tappeiner says that in his first four experiments he used sputa from fresh tubercular cavities, rubbed up with a good deal of water into a thin emulsion, and permitted dogs to inhale it from a steam atomizer, the animals being enclosed in airy cages and protected from dust.

Tappeiner does not describe the exact method and conditions of the remaining experiments, but made in all 31 inhalation-experiments with dogs, of which 18 were true infection experiments with tubercular sputum, 8 control experiments with other substances, and 5 experiments with tubercular sputum, with a view to determining the period of incubation. In all the 18 experiments the results were positive; in 17 there was tubercle in both lungs and pleura; 4 times in addition to the tubercles in the lungs there were tubercular nodules in the kidneys, spleen, and liver, and in 3 instances in addition to the tuberculosis of the lungs there were also cheesy foci and small cavities; in one instance, only, there was typical disseminated desquamative pneumonia.



Of the 8 control experiments, 2 were made with calves' brain treated in the same way as the tubercular sputum; 2 with the suppurative expectoration of a chronic bronchitic patient, and 4 with cheesy pus from lymphatic glands. All of the 8 control experiments were completely negative, there being no trace either of tubercular nodules or of irritation of the lung by the finely divided particles.

In the five control experiments in which sputum from tubercular cavities was inhaled, the animals were killed in 10, 13, 14, 19, and 20 days after the beginning of the inhalation, and none of them showed any trace of tuberculosis or other symptoms of irritation of the lung, although larger quantities of sputum had been inhaled. From these experiments, Tappeiner concludes that the period of incubation cannot be less than 20 days, and since, also, all the dogs killed in more than 24 days from the beginning of the experiments, except the single one with desquamative pneumonia, were tuberculous, it would appear that the inoculation effects developed themselves within the short period of 4 days.

The results of these experiments favor the view that tuberculosis is an infectious disease, but less conclusively than at first appears. For, in the first place, the control experiments are not numerous enough; and secondly, the material used was not in all instances of the right kind to satisfy the essential conditions. The results would have been more conclusive had calves' brain, or similar substance, been used in each instance. For in view of the fact that much of the expectoration in tubercular phthisis is bronchitic, in view of the difficulty of being absolutely certain that the cases of bronchitis from which the sputum is derived are not also tubercular, and in view of the fact that cheesy lymphatic glands are regarded by most morbid anatomists as tubercular, it is evident that all sources of error are not excluded by Tappeiner. Tappeiner does not state whether the tubercular sputum was taken from cavities after death, or whether from the expectoration of those in whom cavities were diagnosed by physical exploration.

If these experiments could be repeated, and they should be, with due regard to the conditions named, it would seem that their results would have to be regarded as almost conclusive.

#### THE EFFECT OF QUININE AND SALICYLIC ACID ON THE EAR.

KIRCHNER (*Berliner klinische Wochenschrift*, p. 49, 1882) has studied the effects on the ear of those medicaments which cause dulness of hearing, tinnitus, etc. He finds that quinine and salicylic acid cause hyperæmia of the *membrana tympani*, and of the whole labyrinth, and this congestion may be so intense as to cause hemorrhagic extravasations. In

this position, Kirchner is in accord with Dr. Roosa, of New York, who, as is well known, maintains that quinine has a very injurious action on the ear and eye, by reason of the vaso-motor paresis and consequent hyperæmia.

There are, however, two sides to this question. Thus, Weber-Liel, in connection with Gruber, has experimented on adult males with gramme doses (fifteen and a half grains) of quinine. They have ascertained that the temperature of the external auditory canal has been lowered, as also the general temperature of the body. They have not observed any hyperæmia of the *membrana tympani* or other parts of the ear. On the contrary, they have witnessed in five cases the disappearance of a slight degree of hyperæmia, which had existed previous to the administration of the quinine. They ascertained, also, that the maximum degree of impaired hearing was coincident with the greatest decline in temperature.

These observations, so exactly opposed, can be reconciled only by reference to the effect of the dose. Unfortunately, this important factor has been often overlooked. The quantity administered has an unmistakable effect on the results produced. This action may be formulated in a single sentence: Small doses stimulate the circulation, large doses slow the heart and raise the tension. Small doses of quinine cause hyperæmia of the ear, large doses have the opposite effect—causing contraction of the vessels and anæmia. The importance of this distinction is most obvious. As all the world knows, quinine is not the only remedy acting thus; opium, pulsatilla, ipecac, etc., similarly differ in effects according to the quantity administered.

There are other facts which throw a brilliant light on this question. Large doses of quinine, as Knapp and others have proved, cause a marked degree of anæmia of the retina, so that, finally, only the largest vessels remain visible. As these cases usually recover, the condition of the retinal vessels must be that of strong contraction.

#### THE RIGHT TO MAKE AUTOPSIES IN HOSPITALS.

IN THE MEDICAL NEWS of March 17, we drew attention to an English decision on this point. We were not then aware of any American case, but it seems that one was decided in 1880, in the Ohio courts.

Dr. Wm. Carson, of the Cincinnati Hospital, was prosecuted by a Mrs. Farley, for withholding the dead body of her husband, and for making a post-mortem examination upon it, without her consent. Damages were laid at five thousand dollars. The defence alleged that the incision—it was a case of abscess of the liver—was made during life, but

moved the arrest of the case from the jury, as, even if the allegation were true, there was no violation of any legal right, and no cause of action could accrue.

Both Court and counsel agreed there were no precedents to guide them, but the Court granted the motion on the following grounds. While the taking of the clothing of a corpse is larceny, there is no right of property in a corpse itself. Even admitting that the defendant did injure the body, it is an injury for which there is no legal redress; especially as it was shown that only the purest and best motives actuated the defendant.

An appeal was taken, and the Superior Court sustained the decision of the lower Court, though on somewhat different grounds. The duty as well as the right of a wife to bury a husband's body is recognized by the law, and this carries with it the right to its possession in a fit state for burial. The allegation that the body was withheld was not sustained, for the patient died in the night, and the widow was notified by seven o'clock A. M., and the body was delivered on application. The post-mortem examination if made, as alleged, did not disturb the decency of death. "The privacy of the examination, and the confidence involved in the relation of the defendant as attending physician, freed the act from all indignity. It was not a mutilation of the body, or dismemberment or removal of any part or organ; and for all the purposes of fit and proper burial, the body was left without disfigurement. The right in the widow to possession for those purposes was not, therefore, infringed upon." The Court held that the lower Court should have directed a verdict for the defendant upon the evidence, rather than have taken the case from the jury.

We have referred to the case at some length, since it is of very great practical importance to hospital physicians, and it behooves them carefully to note the points involved in the decisions.

#### THE CONTROVERSY OVER THE CODE.

ONE of the saddest phases of the Code controversy now waging in New York is the personal feeling evoked. We are the more pained at this development, since it has led to the public expression of bitter animosity in quarters, where we had every reason to expect that only the most fraternal feelings existed. At a recent meeting of the "New Code" advocates, the proceedings of which we find reported in the *New York Herald* of the 21st of April, 1883, one of the speakers characterized the action of a colleague at the late meeting of the Academy of Medicine, as "a disgraceful, abominable trick, and only fit to be undertaken by a low, ward politician."

He further stated that "for the rest of my life, I can only treat Dr. ——— with required civility." The offence committed consisted in the introduction of a resolution into the Academy, which, in general terms, may be stated as having for its object the maintenance by the Academy of its own by-laws, including the National Code of Ethics. It was further charged that the meeting of the Academy was packed with the friends of the National Code.

We are deeply grieved that a member of a liberal profession should feel compelled to use such expressions against a colleague, and we urge now upon all parties the exercise of forbearance. Honest differences of opinion should be permitted without questioning the motives of those who entertain them. Whether one's adhesion be to the old or to the new Code, his position is entitled to respectful consideration, and vituperation will not weaken it.

There is another aspect of this controversy which should not be overlooked. The New Code is very explicit on the impropriety of physicians permitting their opinions on medical questions to be placed before the public through the medium of reporters or interviewers, yet its advocates apparently do not feel bound any more by it than by the National Code, and they freely place their views on the controversy at the disposal of the daily papers. On the other hand, we are happy to observe that the upholders of the National Code, with a due regard to the dignity of the profession, have uniformly refused to allow themselves to be interviewed by newspaper reporters. This agitation in public of a purely medical controversy is extremely harmful to the best interests of the profession. The newspapers find in it material for the amusement of their readers, and they serve the morning meal of news and scandal, spiced with choice bits from the "doctors' war." In the language of General Grant—"let us have peace"—outside of the profession, if not in it.

#### ENTERPRISE IN BUSINESS.

No one objects to enterprise in business until it runs riot, when it is right that it should be checked, and that, too, somewhat sharply. Circulars are issued by the ton praising this or that preparation, or pill, or infant's food, or purgative water, or disinfectant, and each is quickly made remunerative by the endorsement of various doctors and ministers, whose signatures are a supposed guarantee of its worth.

Two classes of doctors sign such papers; first, well-known good-natured men, with weak moral spines, who advertise the medicine, and secondly, ill-known, worldly-wise men who are advertised by the medicine. There is nothing more common than for physicians to sneer at the readiness with which clergymen lend their names to every medical

circular that is presented to them. The day for such sneers has gone by. We live in glass houses.

The last circular (only of course "to the medical profession") is made more obnoxious than usual by the lithographed signatures of four well-known New York medical men, four also well-known Philadelphians, and six irregulars, also equally divided between the two cities. The majority of these men do not need advertising. Why, then, should they place themselves in such an undignified and unethical position as to allow their names to be used by a commercial firm for its own profit?

## SOCIETY PROCEEDINGS.

### NEW YORK SURGICAL SOCIETY.

*Stated Meeting, April 10, 1883.*

THE PRESIDENT, T. M. MARKOE, M.D., IN THE CHAIR.

#### RUPTURE OF THE TENDON OF THE QUADRICEPS EXTENSOR CRURIS ON EACH SIDE.

DR. L. A. STIMSON presented a patient with the following history: the patient is a rather small, spare man, 58 years old, who has always been healthy. Ten years ago he slipped while walking, fell backward to the ground and found himself unable to use his right leg. He had broken the tendon of the quadriceps apparently at its junction with the patella. The knee became at once painful and swollen, and he remained unable to walk for four weeks. During the following six months he walked with a cane, and noticed disability of the limb when going up or down stairs, finding himself unable to support his weight upon it when the knee was partly flexed. After the expiration of six months he discarded the cane, and considered the limb about as good as ever; he could carry a load of fifty or seventy-five pounds upstairs in the usual way, taking the steps with each foot alternately, and not aiding himself with his hands. He says the appearance of the knee differed from what it was before the injury: that there was a depression above the patella, and the anterior edges of the condyles were prominent.

Three years afterwards (1876) he broke the tendon of the left quadriceps by a similar slip and fall backward. It was treated in the Chamber's Street Hospital by rest in bed, with the limb bandaged upon a posterior splint. The knee was swollen and painful for three weeks, and more or less stiff for six months afterwards. Then he resumed work as a porter, and worked steadily until January, 1883, his right leg being all this time stronger than the left. His duties frequently required him to carry loads of fifty or one hundred pounds on his shoulder; in walking, he kept the knee almost perfectly straight, and occasionally he fell heavily, this happening whenever he slipped and bent the knee. In going up and down stairs he always aided himself with his hands on the banisters; he says he was always fearful lest he should fall, yet he carried weights, and even climbed ladders. He could not rise from a sitting posture without aid, unless the seat was so high that the knees were extended.

Early in January, 1883, the right knee-joint suppurated, from unknown cause, and he entered Bellevue Hospital. The joint was opened in the median line above the patella, drained, and immobilized. The discharge ceased about the end of February.

His present condition is as follows. Left knee: when the knee is flexed nearly to a right angle, the anterior

surface and edges of the condyles are very prominent, and the patella lies below, leaving a deep sulcus above it, between the condyles, occupied only by skin and cellular tissue; this skin is rather closely bound to the condyles so that it does not move upward as freely as the patella. The patella can be raised from the condyles, and the finger passed between it and then from above to the distance of nearly an inch by pushing the skin before it. The quadriceps is atrophied to such an extent that the femur seems almost subcutaneous in front.

The power of active extension is entirely lost. Even when the leg is hanging straight down, with the knee slightly flexed, the foot cannot be moved forward in the least, except by swinging it.

Right knee: still somewhat swollen, and the soft parts indurated. The patient says that its appearance before the suppuration in January last, was almost exactly the same as that of the left knee. The quadriceps is not so completely atrophied as the left, and the patient says the right has been the better limb of the two.

He walks now with one crutch, taking short steps.

DR. R. F. WEIR said that he had just finished treating such an injury in a very heavy man who tumbled in the usual way without striking his knee, but the rupture was different from that illustrated in Dr. Stimson's case. He had met with two varieties of ruptures: one, where the tendon is torn entirely across; and the other, where only the central portion is ruptured. In his recent case, the central portion was involved, and by drawing the muscle down by strips of rubber adhesive plaster, and immobilizing the joint, he was able to get a very good result; that is, the patient was able to throw the leg forward and go upstairs without difficulty. He had seen, a few years ago, one case in a woman where the tendon was apparently divided completely across, but there was some power of extension, showing that it was not entirely separated.

In cases of ruptured quadriceps, attempts had been made to reunite the parts by sutures under antiseptic precautions, but the results had not been sufficiently encouraging to warrant us to repeat the operation. Better results and greater security had been obtained by immobilizing the joint with the posterior splint.

DR. YALE had seen a case in which the tendon had been torn and the patella dislocated laterally by the limb being caught between a cask and the side of a house. The use of the limb was impaired as long as the gentleman lived. The patella, however, made for itself a new point of adhesion at the side of the joint, and the condyles were exposed by so much as the patella had been displaced by the dislocation.

DR. POORE remarked that he had already reported a case to the Society, in which rupture of the quadriceps had taken place, and the separation was four inches, which was finally reduced to about three inches. The rupture was complete. The ultimate result was that the patient had perfect use of the limb; flexion and extension, and walks without a limp.

#### EPITHELIOMA OF THE EYELIDS, NOSTRIL, AND SIDE OF THE FACE.

DR. GERSTER presented a patient, 64 years of age, illustrating the final result of the removal of an extensive epithelial cancer, which had its commencement at the outer canthus of the right eye. The disease had gradually, in the course of several years, involved the upper and lower eyelids, and the entire conjunctiva, a considerable portion of the superior maxilla, and the cheek and the right nostril. When the patient first came under his observation in September, 1881, Dr. Gerster, with a great deal of difficulty, succeeded in



exposing the eye, and found the cornea ulcerated and in part covered with cicatricial tissue. The patient was entirely unable to move the eyeball, and Dr. Gerster suspected involvement of the orbital tissue and fat. The patient insisted on getting rid of this offensive, ulcerating mass, and when Dr. Gerster had made the necessary incisions, entering the orbit, he found that the tissues occupying the posterior portions of the orbit were not involved at all. The case therefore was not so hopeless as it seemed to be apparently before the orbit was opened. The eye, all the orbital fat, a portion of the superior maxilla, of the skin of the cheek and forehead, both eyelids, and a portion of the right nostril were removed. The defect following the operation was enormous, and it was very incompletely repaired by the process of cicatrization and contraction, and finally, in January, 1882, he proposed a plastic operation, with a view to remedying as far as possible the disfigurement. To do this, he raised two large flaps from the forehead, using one for the formation of the lower eyelid and cheek, and the other for the formation of the right nostril. He cut both flaps intentionally in an oblique direction in order to make them as long as possible. A small part of the flap out of which the nostril was formed, sloughed on account of the pressure of the adhesive plaster plug placed in the newly formed nostril, which, however, looked very satisfactory.

Having obtained union of the two flaps, he still had considerable redundant pedicle. The redundant part of the pedicle used for the nostril was separated three weeks after the former operation and being attached by sutures to the skin of the forehead, served to form an upper eyelid. This subsequently was drawn deep into the orbit, thus forming a sort of lining of the roof of the cavity, and the cicatricial traction thus exerted had the effect of smoothing off the unseemly protuberance caused by the rotation of the pedicle. The redundant tissue of the other flap was also cut away, and put back into the defect caused by its original removal, where it helped to hasten the final healing of the wound. The ghastly deformity having thus been reduced to a small granulating space occupying the apex of the orbit, the patient is enabled to get along well with the aid of a small bit of black silk placed over the orbit as a protector. As yet, the disease had not returned.

Dr. WEIR then read a paper entitled

#### SOME REMARKS ON BICHLORIDE DRESSING.

(See page 491.)

Dr. GERSTER said that he had used ligatures prepared after Kocher's method, by the use of oil of juniper, almost exclusively since September, 1882, and in not a single case had suppuration undoubtedly been caused by the ligatures. As far as manipulation of the material so prepared was concerned, it was very agreeable to handle. It is hard and firm, especially if it has been kept for some time in ninety-five per cent. alcohol, which apparently has the effect of toughening the substance; it ties very nicely, and it is not absorbed too soon. He had used it for ligating the large vessels, and with excellent results. As a suture, it answered very well, and lasts longer than the carbolicized suture of Lister.

He had also employed Brun's gauze in the German Hospital, the Mt. Sinai Hospital, the German Dispensary, and in private practice. The original method of preparation by the use of alcohol as a solvent made the material very expensive, and with the coöperation of the druggist, he finally succeeded in finding an excellent solvent in benzine, which during the last four years he had been using exclusively. Contrary to what was at first suspected might occur, the benzine had not

affected the skin unfavorably; and the cost of the gauze prepared in this way was very considerably less.

Dr. WEIR remarked that he had made experiments four years ago with benzine as a solvent, and had found, in corroboration of the statement made to him by Dr. Squibb, that the evaporation of this solvent was so rapid that it carried off with it an undue amount of carbolic acid, held in solution; therefore, the gauze and jute prepared with benzine very rapidly deteriorated, and it gradually fell into disuse in the New York Hospital and other institutions where it had been employed.

#### MEDICAL AND CHIRURGICAL FACULTY OF MARYLAND.

*Eighty-fifth Annual Meeting, held at Baltimore, April 24, 25, and 26, 1883.*

(Specially reported for THE MEDICAL NEWS.)

TUESDAY, APRIL 24TH.—FIRST DAY.

THE Eighty-fifth Annual Meeting of the Medical and Chirurgical Faculty of Maryland commenced in Hopkins Hall, Baltimore, on April 24th, at twelve o'clock; the President, Dr. WM. M. KEMP, in the Chair.

After an opening prayer and the reading of the minutes of the previous meeting, the PRESIDENT, Dr. WM. M. KEMP, gave the

#### ANNUAL ADDRESS.

After a brief introduction he spoke of the two lines upon which, from its very incipency, medicine as a science has run—(1) the line of theory; (2) the line of observation of facts. He proceeded to show how the most important epochs in the history of medicine, when the science made the greatest advances, were periods when men have busied themselves chiefly with the careful and accurate study of facts, and have drawn their conclusions from results thus obtained. He further illustrated his point by reference to individual cases, showing how all real observation of fact has a permanent value which largely depends upon the freedom which the mind of the observer has from servile adherence to the opinions of men of great authority. No advance can be made without a proper independence of thought.

Now that the advantages offered him are so much greater than they were fifty years ago, there is far less excuse for the young medical practitioner failing to become an intelligent physician, able to think for himself, and deserving a worthy place in the profession, able even to advance it. Although after his course of study has been completed he must practise for a little while in accordance with the views he has gleaned from his college, from hospital practice, and from text-books, he should commence independent study with his first case and go on adding year by year to his resources, not only by study, but by observation.

Dr. Kemp thought that, had there been a more thorough understanding and knowledge of the crucial tests, made as to the value of vaccination as a preventative against smallpox at the time of its first introduction, of the best testings during the last fifty years, and a thorough study of their own cases by those who had any considerable experience in vaccination, the doubts thrown upon its efficacy during the last winter would have been met by much more concordant answers, and answers of such a kind from the profession as would have set the public mind more at rest.

But, notwithstanding the wonderful accuracy which is attainable by man, there are two things which should serve to keep him humble—first, his inability to grasp

all the facts within his reach, so that a fresh observer a thousand years hence will still find fresh facts to observe; and, second, the absolute limitations of his knowledge. He can study life, electricity, etc., but remains in complete ignorance as to what they are. It is well for us to recognize these limitations, and to let our studies have the ennobling influence of filling us with a true humility, and with a true reverence for Him who knows it altogether.

Whatever a man's capacities or learning may be, whatever be his creed, there is still in him a restless longing after something higher and better. "We see not in this life the end of human actions. Their influence never dies." "Every morning when we go forth, we lay a moulding hand on our destiny." "In this world, character is in its formative state: it is a serious thing to think, to speak, to act."

#### REPORTS OF OFFICERS AND COMMITTEES.

After the address, routine business was resumed, during which the following items of interest were brought out: DR. W. F. A. KEMP, the *Corresponding Secretary*, proposed that the executive committee be instructed to take measures toward the reviving the county medical societies in Maryland, there being now but few.

The report of the Treasurer, DR. JUDSON GILMAN, showed the finances of the Faculty to be in good condition.

He also reported, as *Chairman of the Publication Committee*, that 500 copies of the last year's *Transactions* had been printed and widely circulated.

The *Committee on Memoirs*, through its Chairman, DR. H. M. WILSON, presented brief memoirs of Dr. W. G. Regester (who, at the time of his death, had been for twelve consecutive years Recording Secretary to the Faculty), Drs. Charles Albert, Henry Albers, and E. Cleveland Coxe, speaking in warm eulogy of them all.

DR. I. E. ATKINSON, *Chairman of the Library Committee*, reported that the constitutional amendment adopted last year by the Faculty, providing increased funds for the library, while it had not proved such a great success as had been hoped, had been of very great benefit, and that, even now, the library alone formed one of the chief advantages offered by the Faculty to its members. The present number of volumes in the library is 3,346, an increase of 277 over last year. One hundred and eight journals are taken—fourteen English, six French, three German, three Austrian, and eighty-two American.

Some articles of antiquarian value have been added in the shape of some valuable old portraits, and the first volume of the *Baltimore Medical and Surgical Reporter*, edited by Tobias Watkins, 1808, which was the first medical journal in Maryland, and the third in America.

The most important part of their report was that they had received an offer from Dr. J. S. Billings, of the library of the Surgeon-General's Office, in Washington, to take the old books from the Faculty's library that are not owned by the Washington library, and give in exchange double the amount of new books of which they have duplicates (*i. e.*, two new books or pamphlets for one old book or pamphlet). As there are between one hundred and fifty and two hundred old books in the Faculty's Library which could be so disposed of, and which are of no use here, the Committee proposed the following resolution, which was adopted:

*Resolved*, That the Library Committee is hereby empowered to negotiate with the authorities of the library of the Surgeon-General's Department, U. S. A., for the exchange of books and pamphlets, and to

make such exchanges as, in the opinion of the Committee, will contribute to the welfare of the library.

The Committee spoke of the need for increased accommodation for the books.

The Reports of the Sections in order were then taken up.

#### SECTION ON SURGERY.

DR. OSCAR J. COSKERY, *Chairman*, reported on

##### LATE ADVANCES IN ABDOMINAL SURGERY.

He confined his report to abdominal surgery exclusive of gynecology, choosing only gastrectomy, splenectomy, and nephrectomy.

*Gastrectomy* has been made most successful since the suggestion of Mr. Howse, that the process should be divided into two stages: first, opening the abdominal wall, and stitching the stomach to it by six or eight sutures; and, second, opening the stomach itself five or more days afterwards. A number of cases of gastrectomy, undertaken for various causes, were then given, and Dr. Green, of Bath, was quoted: "On referring to the medical literature of gastrectomy, I find sixty cases of gastrectomy recorded (nearly all of them in the *London Lancet*); eleven for the removal of a foreign body from the stomach; of these, ten recovered rapidly, and one died." This presents a striking contrast to the fatality of gastrectomy performed for malignant disease, the cause being that, in the former cases, the patients were in good health, and had not been subjected to the debilitating effects of cancerous cachexia and slow starvation. In corroboration of this, out of seven cases where the operation was performed for traumatic stricture of the gullet (all patients being under twenty-two years of age), two died—one on the twelfth and one on the twenty-seventh day—from inanition. These last cases do not show an advantage for Howse's operation over the old method, the operations being divided between the two, and the results being the same. In malignant diseases, however, we find his method the most successful. Of twenty-two cases by the old operation, twenty died within the week. Of twenty by Howse's method, one is vaguely stated to have died ultimately; nine within two weeks; three lived two months; one was going on well the ninth day; one discharged from hospital, doing well, on the thirtieth day; three more were living four or five months after. Dr. Green added a successful case of his own.

DR. COSKERY referred to Ashurst's tables of ninety-seven cases, of which nineteen recovered, temporarily at least, and seventy-six proved fatal in periods varying from a few hours to three months. He had collected further statistics, raising the number to one hundred and three, with seventy-seven deaths, and twenty-four recoveries. He thought also that the prolongation of life for three months in cases of cancer was really a success for the operation.

*Conclusions.*—1. Gastrectomy, in its widest sense, is a justifiable operation (a) where there is a foreign body in the stomach, when for any reason it cannot pass the pylorus; (b) in cases where malignant disease or contraction of the œsophagus is progressing; (c) where decrease in calibre of gullet is due to inflammatory action after introduction of corrosive liquids, where it will not yield to bougie treatment. 2. The earliest possible opportunity must be availed of for the operation. 3. Incision into the stomach should not be longer than one-eighth of an inch, unless made for the removal of a foreign body, and then as small as will permit of its extraction. 4. It is most successful when performed for the removal of foreign bodies or accidental stricture of the gullet. 5. When done for obstruction to the swallowing of food, the oper-

ation should be divided into two stages, as suggested by Mr. Howse.

The operation of resection of the pylorus, Dr. Coskery thought, was hardly within the pale of legitimate surgery—at least, it was still *sub judice*.

*Splenectomy* should always be regarded from two standpoints—whether for the removal of an injured or diseased spleen, or for removal when the enlargement is owing to leucocythæmia. A number of instances were reported, with the conclusion that in the former case it is one of the most successful; in the latter, one of the most fatal of abdominal operations.

*Nephrectomy* is an achievement of the last twenty years. A large number of cases of this operation were quoted, with the following conclusions: We are constrained to consider the operation a justifiable one. The chief difficulty is to make a correct diagnosis between those conditions of the kidney requiring extirpation in the one case, simple tapping in another, or cutting down upon and extracting a stone from the pelvis in a third.

By making the incision in the same direction as for colotomy, the operation should be as bloodless and as free from danger. When the latero-abdominal incision is made, we run about the same risks that the gynecologist runs in a case of monocular ovarian cyst. The principal dangers in the operation seem to be any accidental adhesions and the shock consequent upon the removal of so important an organ. The method should be left to the individual operator.

#### SECTION ON PRACTICE.

DR. R. H. THOMAS read a paper entitled

##### A CONTRIBUTION ON THE INFLUENCE OF SEASON AND WEATHER ON THE DIPHTHERIA DEATH-RATE IN BALTIMORE.

Diphtheria has been endemic in Baltimore since the end of 1860, in which year it first makes its appearance upon the mortality returns of Baltimore.

Dr. Thomas regretted that it was impossible to obtain the number of non-fatal cases in the city, for the deaths bear no permanent relation to the number of cases; still the number of deaths furnish a clue to the number of severe cases.

Up to the end of 1878 the official reports gave only the number of deaths per month. Since then we have weekly reports. The difficulty of the investigation is increased by our knowing neither the date of attack, nor, within a week, the date of death. It is important to bear in mind also that even if the weather, etc., do exert a direct influence, the concurrence of other local causes will produce fluctuations independently of it. For example, other things being equal, a child attacked in a well-arranged house where there are no other children, if it be rigidly isolated, may cause no more cases; but if the disease break out in a crowded tenement-house, one case may prove a focus for a great spread of the disease. Still, before we allow that the season or weather exerts a positive effect upon diphtheria, we must insist in regard to the season, that the curve of diphtheria bears a fairly constant relation to the season or months as they recur, and that the exceptions are comparatively few or unimportant, and, in regard to weather, that the exceptions are few or only temporary.

The writer had decided not to unite the returns for diphtheria and croup, although he himself was disposed to consider them identical; there are still too many who do not so consider them.

From a diagram, he had prepared, Dr. Thomas proceeded to explain the average curve in the diphtheria death-rate in Baltimore for the last twenty-two years.

The fewest deaths occur in July. There is a rapid and steady rise from this month, till the highest number is reached in October. During the next two months the maximum is nearly maintained. January shows a commencing fall, which is increased in February, after which there is a gradual fall, broken by temporary rises in March and May until the level of July is again reached. In comparing the separate years with this curve, July was found lowest, or as low as the lowest on the list in fourteen years, eleventh in one, seventh in one, eighth in one, and sixth in three. July shares the lowest figure once with April and June, once with May and June, and twice with August. Besides this, the lowest occurs twice in March, three times in April, once in May, and once each in June and August. The lowest for the year is never met between August and the succeeding March, and with two exceptions not till April. The rise in the death-rate occurs with great regularity after July. In seventeen years, every month thereafter has a larger diphtheria death-rate than July. In the remaining five years the exceptions are mostly unimportant, occurring chiefly in August, though sometimes in the other months, as December.

In fourteen years the highest number of deaths is found in the last three months of the year, in the other years it is distributed between January, February, March, April, and September, never occurring between April and September.

Comparing the years, month by month, January almost always shows a fall from the height-attained in the three preceding months; February a fall on January in fourteen years; March has no constant relation to February; April has fewer deaths in fifteen years; May and April nearly correspond; June shows a fall on May in twelve, and July a fall on June in fifteen years. After this the rise is regular, August is more than July in sixteen years; September than August in eighteen; and October than September in thirteen. After this the months nearly correspond. Both on the diagram and year by year, September shows an equality with January, and August with February (the number of times one of these months exceeds its companion month being counter-balanced by the number of times it falls below it). Thus we have a very slow fluctuating fall in the spring, and a rapid rise in the autumn.

This season-curve agrees fairly well with results obtained by other observers who have believed that the season exerts an influence. The season does not seem to exert so great an effect on epidemic diphtheria, though Dr. Airy found the greatest number of outbreaks in England occurred in October. It is interesting to note from this that neither heat nor cold alone can be blamed; but that the rise is most rapid, and the maximum reached at the very season when fungoid growth is most active.

Dr. Thomas proceeded to explain the combined charts which he had prepared, giving the diphtheria death-rate, the average barometric pressure, the total rain-fall, the direction, maximum, and mean velocity of the wind, average thermometric measurement, relative humidity, and approximate degree of cloudiness for every week from the 1st of January, 1879, to the fourth week in April, 1883.

The conclusions arrived at from these charts were as follows: While the total rain-fall for the year, as shown by a table he had prepared, seemed to exert no regular influence, the distribution of the rain appeared to have a good deal. A continued and heavy rain-fall occurring at any one time was followed by a rise in diphtheria. This was specially noticeable when the rain-fall occurred during the summer and autumn. No connection could be found between great cold and great humidity, though unusual heat for the time of year



combined with humidity appeared to act as predisposing causes.

Dr. Thomas' conclusions were as follows, though he explained that they could only be accepted as tentative, and pointing the way for future investigation:

1. While the weather alone does not regulate the absolute number of deaths from diphtheria, it seems to have a very important bearing upon the rise and fall of the violence of the disease, although temporary fluctuations occur independently of it.

2. Temporary changes in the weather have but little effect, but a continued prevalence of certain kinds of weather does cause a rise or fall in the mortality from diphtheria.

3. The conditions favorable to a rise are low barometer, long prevalence of low winds, especially from the east (E., S.E., N.E.), high temperature (for the time of year), with high humidity, and heavy or continued rain-fall.

4. The conditions favorable to a fall are high winds (if not from E., N.E., S.E.), low humidity with high temperature, or high humidity with low temperature, and (generally) high barometer.

These conclusions apply to Baltimore; it is quite likely that in places under other conditions different results would be found. A number of authorities were quoted and discussed. The charts showed no relation between cold and dampness, and the death-rate from diphtheria.

WEDNESDAY, APRIL 25TH.—SECOND DAY.

DR. B. BARTON BRUNE read the report of the

#### SECTION ON MATERIA MEDICA AND CHEMISTRY,

giving the most important advances in urinary chemistry published during the past year. He referred to Dr. Garrod's views, that the uric acid is found in the kidney in the form of urate of ammonium; that in the presence of excess of sodium salts it becomes converted into sodium urate, in which form it exists in the blood.

Dr. Garrod does not think that gravel in the urine is the nucleus of a calculus, which he believes to be due to the perversion of the kidney cell secretion, and the action of some colloid matter.

Dr. Brune proceeded to speak of the picric acid as a test for sugar, which has been so warmly advocated by Dr. George Johnson (*Brit. Med. Journ.*, March 12, 1883). His conclusion was that if all Dr. J. claims for it be found true by other observers, this will soon supplant all the other popular tests for sugar; but Dr. Brune thought Dr. J. underestimates the importance, as a source of error, of the formation of picrate of potassium when picric acid and a solution of potassium hydrate are boiled together. In a certain number of experiments made by himself, he found that the appearance of such a deep orange discoloration as would seriously complicate the detection of minute quantities of sugar. Dr. J. does not mention, moreover, what effect, if any, the presence of ammonium or some of the iron salts, etc., would have on the accuracy of this method, although these are known to reduce picric acid.

DR. J. R. WARD, *Chairman*, read the report of the

#### COMMITTEE ON SANITARY SCIENCE,

in which he urged the importance of more thorough popular instruction on hygiene and the laws of health. The physician ought to avail himself of every suitable opportunity to explain and enforce them amongst his patients. It is likewise most important to impress them upon children and young people, and instructions on hygiene should form part of the regular curriculum in the public schools. The need of such teaching is felt

when any contagious disease attacks the community; as, for instance, in the recent epidemic of smallpox in our own city. Dr. Ward then proceeded to speak of the two methods of vaccination, that with bovine virus and that with the human crust. After instancing some objections to which both kinds are liable, he said that the whole subject demanded a much fuller investigation than had yet been given it.

#### SECTION IN OPHTHALMOLOGY, OTOTOLOGY, AND LARYNGOLOGY.

DR. A. FRIEDENWALD, *Chairman*, presented a report on the

#### RELATIONS OF SPINAL AND EYE DISEASES.

After speaking of the close connection between ophthalmology and the general practice of medicine, he continued: It has long been realized that spinal diseases not infrequently affect the eye. Not only is this the case with tabes dorsalis, but with other lesions of the cord. Sufficiently large statistics are still wanting upon which to base a correct estimate as to the percentage of eye troubles in affections of the spinal cord. In consulting statements made on this point, we must remember that the optic nerve not seldom presents the first symptoms of the disease. According to Charcot, amaurosis may be the first and for a long time, even ten years, the only symptom manifested. Cyon found eye disturbances in 105 out of 203 cases of locomotor ataxy. Erb says that permanent eye troubles arise in from one-fifth to one-third of all cases, and temporary difficulties in more than one-half; Tropinard, that visual disturbances occurred in 49 out of 102 cases. Not only in locomotor ataxy, in which the eye is most frequently affected, is this the case, but eye disturbances occur also in multiple sclerosis of the brain and spinal cord, in chronic myelitis, in slow compression of the cord after injuries, and, more recently, we find that cases of acute myelitis are not free from this complication. Among others mentioned, Rieger and Von Forster have been conspicuous. They have studied extensively the symptoms of insane paralytics, and, by means of post-mortem examinations, have shown that the optic nerve degeneration which accompanied these cases was due not to cerebral lesions, but to disease of the spinal cord—that was concomitant in these cases; for, though meningitis and atrophy of the cortical substance of the brain had existed, eye symptoms were always wanting unless disease of the spinal cord had also been found. In locomotor ataxy and in multiple cerebro-spinal sclerosis, the eye is not assailed in the same way. In ataxy, the optic nerve becomes implicated, and the disease progresses until total amaurosis ensues. In multiple sclerosis, the optic nerve seldom undergoes complete atrophy, and persons suffering from this disease seldom become completely blind. The eye trouble in the former pursues a steady, in the latter a fluctuating, course. In multiple cerebro-spinal sclerosis, the cord and the eye are independently attacked. We are forced, however, to admit that a diseased condition of the spinal cord can induce changes in the distantly situated optic nerves as a direct consequence, especially in cases due to traumatic lesions. This is also shown by the result of physiological experiment, so that, in the present state of our knowledge, we must assume that the injury is transmitted by a vaso-motor disturbance conveyed in the tract of the sympathetic nerve. We must not overlook, however, that Stilling has traced roots of the optic nerve in the medulla oblongata. Cases where the spinal cord has received traumatic injury furnish the most conclusive testimony regarding the optic nerve degeneration being due to the direct influence of spinal disease. Allbutt found eye disturbances in

eight out of thirty cases. They were only present where the disease was chronic. Dr. Friedenwald mentioned the reports of several other observers on this point, in which cases with vascular disturbance in the eye were mentioned, which he considered to have a very important significance, because Von Graefe rejected the idea that optic nerve atrophy directly follows spinal disease, from the fact that he had never seen it preceded by hyperæmic conditions pointing to an optic neuritis as the beginning of the eye disease. It is very probable that the atrophy, instead of being the starting-point of the eye disease, is but the consecutive expression of a previously existing inflammation.

The force of Graefe's suggestion has been much shaken, not only by observations with the ophthalmoscope, but also by the investigations of Rieger and Von Forster, who report two cases of chronic spinal disease in which well-marked intercurrent hyperæmic conditions were observed. Dr. Friedenwald proceeded to adduce further evidence in support of the above statements, and to speak of the close connection between the sympathetic nerve and the eye, and to describe the various physiological experiments which Rieger and Von Forster have undertaken.

When the cervical sympathetic was irritated, contraction of the pupil and of the retinal vessels ensued. When the lumbar portion of the cord was operated on, there were dilatation of the pupil and contraction of the muscles. When the dorsal portion was chosen, both dilatation of the pupils and of the vessels occurred. The fact that an irritation of the cord will set up hyperæmic conditions of the optic nerve is satisfactorily established, and it cannot be denied that the sympathetic nerve may, under certain circumstances, be the medium through which the eye is reached. Speaking in regard to the differential diagnosis of optic disease as a result of spinal lesions, he said that the ophthalmoscope alone is hardly sufficient. Red and green color-blindness, the contracted field of vision, especially the sector-shaped defects, are prominent among the data furnished by examining the functions of the eye; also increased sensibility to light, even when almost blind. Examination of the tendon reflex will often be of great value. In regard to the changes in the pupils, there is nothing peculiar when they are dilated, but, when contracted, quite a characteristic condition is that, while the contracted pupil shows changes with the efforts at accommodation, it shows no change under the action of light. The most difficult point in this study relates to the disturbance of the external muscles of the eye. The muscles supplied by the fourth pair of nerves enjoy almost entire immunity; those supplied by the third and sixth are attacked with about equal frequency. Sometimes the motor oculi of one eye will be involved, while the abducens of the other alone has suffered. We are still very much in the dark as to this point, and it is hoped that future investigators will clear up the discrepancies.

DR. H. CLINTON MCSHERRY read a paper on

#### STENOSIS OF THE LARYNX,

illustrating it by three cases from his own practice, one of which he exhibited. The first case was a female suffering from constitutional syphilis. She came to him with a history of chronic trouble in her throat, which, with fluctuations, was getting worse. He found her breathing very labored, and, on laryngoscopic examination, the whole larynx pale, the arytenoids being very much enlarged and oedematous, but showing no sign of phthisis; ventricular bands so much thickened and broadened that on attempted phonation they met together. The voice was a muffled whisper; on deep inspiration the edge of the right vocal cord came into

view, the left could not be seen. Throat symptoms apart, her general condition was good. Considering the thickening to be due to syphilitic perichondritis, he relied upon local applications and constitutional treatment; applied iodo-glycerine (Vienna Hospital formula) daily, with excellent results; galvanism to the larynx being also used. To the second case he was called in haste, on account of impending suffocation. This also was trouble of a specific nature; the laryngoscope revealed complete destruction of the epiglottis, and inflammation of the ventricular bands, which were so swollen as to hide the vocal cords. The glottis was so closed as to be not larger than the calibre of a goose quill. Other means having failed, laryngo-tracheotomy was performed, after which the patient did well. Having reduced the thickening in the glottis by means of local applications of a solution of cupri sulph. for two weeks, Schrötter's dilating tubes were daily introduced, size gradually increased for a month, with good results. After accustoming the patient to breathe through the natural openings by frequently corking up the tracheal tube and continuing the above treatment for nearly a year, he was able to remove it entirely and close the wound. This patient was exhibited. There is no difficulty of breathing, though the voice is still a little husky.

Dr. McSherry proceeded to give a *résumé* of the course pursued by typical cases of different kinds of laryngeal stenosis. His opinion was that although most cases of stricture of the glottis are due to syphilitic disease, constitutional treatment alone will never effect a cure in a well-marked case; local treatment being always necessary. Tracheotomy is proper to save from imminent death, but should not be undertaken without laryngoscopic examination, as the dyspnoea may be caused by a slight oedema glottidis or a collection of mucus. Schrötter's hard-rubber tubes are invaluable for dilatation. Speaking of the mode of dilating the larynx after tracheotomy, he referred to an instrument for dilatation from below (through the tracheal opening) invented by Störk in 1878, which Dr. McSherry had so modified as to give it three dilating blades instead of two. These blades may be made of different lengths to suit different cases, and may be gradually more and more separated from each other day by day, by turning a screw outside of the canula to which the instrument is fastened; the third blade is placed anteriorly, so that as they separate, the blades form a triangle, which is the normal shape of the larynx. Dr. McSherry then exhibited this modified instrument; he then described Schrötter's method of dilatation after tracheotomy, and other instruments for dilating the larynx. Dr. McSherry considered that the cases he had reported illustrated the good results obtainable in laryngeal stenosis.

DR. C. W. CHANCELLOR read a paper on

#### THE SEWERAGE OF CITIES: LIERNUR'S PNEUMATIC PLAN.

It is as important a matter for cities as for individuals to get properly rid of all waste and effete matters. Liebig tells us that every living organism produces in its offal the manurial ingredients, both quantitative and qualitative, required for reproducing the means of sustaining its life. So it is also undeniable that the nitrogenous and other matters in the sewerage of cities might be so used as to suffice for producing food for the people of the city. But this fact is ignored. We import fertilizers at great expense, when we have them at hand, and use what we have to pollute our streams. Considering the so-called "dry systems" out of the question, Dr. Chancellor spoke of the three great systems: 1. "The English water carriage," or "combined" system, found throughout England, and in many large cities of the

Continent. This treats all sewerage of all kinds alike, by conducting them off in the same conduit, a large quantity of flushing water serving as means of conveyance. This system Dr. Chancellor condemned. The principle "that water is the cheapest carrier," is wrongly applied. It is true in the case of navigable rivers and canals, but not for sewers, where enormous quantities of water must be supplied from the city water works, especially when the offal must subsequently be again removed at great cost. Again, as the maximum water use is in the morning, and the least at night, the sewer flood is in the daytime and the ebb at night. During the ebb the sewer becomes "coated" with fecal slime about one twenty-fourth to one thirty-second of an inch thick, which is not removed by flushing, and enters into putrid fermentation soon after being exposed to the air, as it is every evening. This fermentation is a fungous vegetation of the most dangerous kind. Sewer ventilation does not prevent these fungoid growths from exerting their poisonous influence, for being solid, they cannot be diluted by the air, and they cannot remain suspended. As a matter of fact, sewer gas does find its way into dwellings.

The chief difficulty with this system is what to do with the sewerage matter after it leaves the city. Empty it into the nearest water-course? Then the rivers, bays, etc., are hopelessly polluted, as is notably to be seen in the Bay of Naples. Use it for irrigating land? This is altogether inapplicable to large cities. The land becomes overdosed, and a noxious swamp results, as has been seen near Berlin. Only rank grass thrives on such diluted manure, and it is almost worthless. In short, this has proved a failure. The failure of this led to the second system, called the "separating" system; this is open also to serious objections, and having two sets of sewers on this plan really doubles the danger.

In Baltimore, with its numerous hills, the surface drainage should be as little as possible interfered with, as every rain aids in keeping the city clean; only short, shallow conduits in certain parts of the city are needed for the removal of rainfall.

The third, or pneumatic system of sewage, as invented by Capt. Liernur, a distinguished engineer of Holland, was next considered. This system was inaugurated by him when he was intrusted with preparing plans for the drainage of the fortifications of Luxemburg. His instructions were that only inoffensive waters should drain off into the little stream (Else) on which the city is built, and that all matter suitable for manure, should be preserved for that purpose. He adopted the plan of having two distinct sets of sewers, one for matters which are essentially dangerous from a sanitary point of view, but which have sufficient value as manure to justify the adoption of processes to render them available for agricultural purposes; the other for fluids already inoffensive, or easily rendered sufficiently so to be discharged directly into the nearest water-course. Dr. Chancellor proceeded to describe with much minuteness the pneumatic system, how the sewers of each kind were constructed, and how they worked, together with their special advantages. The advantages possessed by the water sewers are: 1. That it does away with the expensive collecting or intercepting sewers for conducting the sewage in mass to some common outlet away from the city. 2. With all expensive fixtures for flushing, such as water galleries, tanks, grates, etc., there being nothing to demand removal by extra flushing, or to cause a nuisance at the outlet. (No solid matter greater than a fraction of an inch in size being allowed to enter.) 3. With all expensive structures for entering and lighting the sewers for the purpose of removing sedi-

mentary deposits, since no deposits are formed. Another advantage is that the household drains enter the sewer in such a way as to create a current forward in the fluid in the sewer. The result is: 1. All water entering the sewer is converted into hydrodynamic motive power, pressing as it does on the sewer contents by means of vertical injector tubes in the direction of the flow. 2. (As the sewer is kept full of water,) all inlet arrangements and ventilation tubes are entirely superfluous, there being no air admitted or any to be displaced. Thus an effective self-regulating sewerage for household and manufacturing wastes, is afforded, which discharges them in an innocuous condition, and dispenses with the above-mentioned contrivances used in ordinary sewerage methods. After speaking of some modifications for rain and sub-soil sewerage, Dr. Chancellor proceeded to describe the excretal sewers on the Liernur method. This he went through in detail, showing how simple and yet how perfect the arrangement was, and then explained how this kind of sewage is utilized. All the fluid parts of the matter are driven off by the use of heat, the same fuel being used for this purpose as is employed for working the vacuum engines for the sewers, thus much reducing the expense. As the process takes place in a partial vacuum, there is no smell. The result is that the fecal matter becomes a valuable commercial article, being reduced to a state of fine powder fully as well suited for manure as is guano, and far less costly, and, at the same time, it has been removed from the city in strict accordance with the laws of sanitation. Notwithstanding the apparent complexity and costliness of this system (which is only apparent) it turns out in the end not only more advantageous to health, but really cheaper than the other systems. Dr. Chancellor concluded by speaking of the necessity for convincing the public that "the present barbarous mode of removing offal, of polluting streams, and wasting millions worth of valuable manurial material, has no longer any right of existence, since sanitary science and engineering skill have fully succeeded in satisfying all demands in reference thereto."

### THIRD DAY.

After reading the minutes, the first order of business was the

### ANNUAL ORATION,

by DR. JOHN S. BILLINGS, of Washington. After some introductory remarks, the orator proceeded to the discussion of his subject, which was

### "MEDICAL BIBLIOGRAPHY."

This was defined as the science of books having regard to their description and proper classification. This definition in the *Encyclopædia Britannica* is very much modified from that of a hundred years ago, when it signified "skill in deciphering and judging of ancient manuscripts," that is paleography. Bibliography, when applied to a particular subject, includes the idea of giving references to all the literature of the subject down even to single paragraphs which furnish information with regard to the matter in hand. The first distinct and separate work on the subject is that of Pascal Le Cocq (*Paschalis Gallus*), 1590. This book is arranged alphabetically by the first, not the last names of the authors.

Israel Spachius published at Frankfort, in the following year, his *Nomenclatura Scriptorum Medicorum*. It contained references to 1436 different authors. Both books were based on the *Bibliotheca*, of Gessner. After describing the *Bibliotheca*, of Haller, the orator proceeded to say that it was not his intention to indicate or comment upon the various systematic works on medical bibliography, but he would



consider, to begin with, some of the methods used in medico-bibliographical work.

1. First there is the old-fashioned way of searching books immediately at one's command, using their indices, noting all references to other works, going to a library, procuring more books and more references, etc. This a very laborious way, though after a while it becomes a pleasure. The best work has been done by this method, but it requires much time. 2. The modern mechanical way, the extreme of which is to pay some one to make a list of references for you, and then print it as a bibliography of the subject, without taking the trouble to consult the works themselves. Some writers seem to desire to furnish their article with an imposing list of references without much caring whether they have special relation to the matter in hand or not. The mechanical method, however, is of great use as saving the time of those who can be more usefully employed, and, in most cases, the mass of material to be dealt with is too great to be handled in any other way. "There is danger," as Sir James Paget says, "that in the multiplication of scientific pursuits, and in the superabundance of means of publication, we shall lose the accuracy which should be at the foundation of our work. The publishing of error is quite as easy as the publishing of truth, and there will always be a large number of persons who will believe a statement because it is in print."

An article, signed Ch. R., in the *Revue Scientifique* for July, 1882, urges sincerity as an indispensable condition in bibliographical work. "It is almost a lie to quote a book which one has not had in his hands." Elementary scientific honesty requires that only such books be cited which one has read. No author can consult everything that has been written upon a subject, but there is nothing to prevent stating that a given bibliographical note is at second-hand, and noting the authority for it. Truth is not the only requisite for good bibliography. An important part of true erudition, as the same writer observes, consists in the elimination of the many useless data and materials that have been collected. M. Richet would have no mention made of such references. Dr. Billings thought that, so far as concerns the titles of books or papers, which might seem to a person unacquainted with them to relate to the matter in hand, this rule was not to be followed; that when a writer has examined such a book or pamphlet, and finds that it would be a waste of time to consult it, either from its want of originality, or from its contents not corresponding with the title, etc., he should note the fact distinctly. It is often as important to indicate "no thoroughfare" as to point out the direct road.

This critical indication of the value of a paper, makes the difference between bibliography properly so called, and catalogues and indexes; the main purpose of a bibliographer being to save his reader time and trouble should he wish to verify or enlarge upon the author's statements. If in his investigations he consult a book which proves to be practically useless, he should spare his reader the trouble of looking it up by telling him so. Of course, it is much easier to refrain from all mention of contemporary works than to speak disparagingly of them; but it should always be done for the older writers when any attempt is made to present a bibliography, properly so called.

M. Richet does not think it unwise to attribute great importance to bibliography, nor does he think the turning over of a great number of pages destroys originality. Those too who have the gift of originality, are excused as being the creators who have no need to be erudite. But the majority, who are neither discoverers nor inventors, do need to be. Prof. Verneuil in his preface to the *Treatise on Gastrostomy*, by L. H. Petit,

is more decided in his high opinion of erudition. In his opinion, the author of this book has contributed as much to the future success of this operation as any who have practised it, although he never performed it, and probably never will; the work is one of pure erudition. He says: "Scientific progress is due to three things of equal importance, viz., erudition, observation, and experiment. There is a bibliographical method which is distinct, independent, worthy of cultivation for its own sake, and in no way inferior to its two rivals in the amount and value of the information which it furnishes."

While erudition certainly creates nothing, it leads to creation. To discountenance research in literature, is like advising travellers who visit regions not yet fully explored, to refrain from making use of the maps prepared by their predecessors. The great objection to such work is the amount of time which it requires if it is to be done thoroughly and accurately." He proceeds to show how the time spent is greater on account of each man having to serve his own apprenticeship almost alone; for bibliographical method has never been taught. No one could do such work for himself on all subjects; a lifetime would not nearly suffice for pathology. While observation and experiment are not to be depreciated, let erudition be duly honored.

In America, Dr. Billings went on to observe, there is rather a feeling of undue uncritical admiration for erudition in bibliographical matter than of the contempt or dislike of which Prof. Verneuil complains in France. Until recently, American physicians had not at their command the means of research in medical literature possessed by their trans-Atlantic brethren, and even now in many places they cannot obtain access to them. The members of the Medical and Chirurgical Faculty of Maryland, especially those living in Baltimore, are peculiarly fortunate in this respect. You have a library in Baltimore, which, until a few years since, had for its strongest characteristic feebleness. Recently, the collection has been put into order, and made accessible, a certain number of medical journals are regularly received, and other improvements have been effected. The best use, however, to which your library can be put to, is so to arrange it that it may be the means of your getting the full benefit of your other collection over in Washington, which you may consider as a sort of branch library of the faculty.

The library of the Surgeon-General's Office is a large and valuable one; it is your library, intended for your use, and not a bureau library intended for the use of officials. How may you best use your two libraries, and what should be done to maintain and increase their completeness and usefulness?

First, then, your library in Baltimore should be made, and kept, as complete as possible in the local medical history of the city and State. It should contain every medical book, pamphlet, etc., published in, or relating to the State. The great majority of these will cost nothing but watchfulness and prompt application for them at the time of publication, but if they be not then obtained, the acquisition soon becomes difficult. You want every report of a hospital, asylum, or dispensary; every announcement or catalogue of a medical school; every mortality report, order or handbill issued by sanitary authorities for the State or city; and, as far as possible, you want to obtain at least two copies of each, one for the Baltimore and one for the Washington branch. It is a matter of interest also to keep in the library, constantly posted up to date, a scrap-book for local newspaper cuttings of all matters of medical or sanitary interest, which should be promptly and systematically inserted. A small scrap-book properly indexed to contain newspaper medical

advertisements, especially those of the various quacks who infest this, as they do all other large cities, will be found in years to come very interesting, and, it may be, useful.

The limited amount of funds available for increasing your Baltimore collection, will naturally be, for the most part, applied to the purchase of medical journals. The main thing which you have to do is to perfect the system of care and storage of your books, in order that they may be perfectly secure against, let us say, unauthorized borrowing.

This is necessary, not only to preserve your own books, but to make it possible for the Washington library to loan freely to the Baltimore library. The Washington collection is a reference, and not a circulating library. It does not, as a rule, loan books to individuals; although for modern books which can be readily replaced it will do so upon a sufficient deposit to amply cover their value, its rules in this respect being the same as those of the Library of Congress; but it will freely loan them to other libraries which are so constructed, located, and managed that the books in them are secure from fire, theft, etc. Now suppose that a member of the Faculty desires to prepare a somewhat elaborate article upon some medical subject for a society or journal, and that for this purpose he wishes to compare his own experience and observations with those of others, how is he to proceed?

Before attempting to answer this, Dr. Billings remarked that, as the librarian is busy with his current work, it is impossible for him to assort and arrange references to any great extent in answer to letters from physicians, although he can of course furnish information requiring some half dozen references, can verify a quotation, and is glad to furnish information which a brief examination of a few volumes will supply. The doctor had better visit Washington himself and examine the references, cards, etc., which he can do if he does not interfere with the catalogue work.

Secondly. As a rule it is not well to issue a circular informing the world at large of one's intention and asking physicians generally to report at once all the cases they may have had of the particular disease or injury which one proposes to discuss. This may properly be done by those recognized as authorities on the subject, and who may well be trusted to classify, compare, and judge of the results of other's work. But when a comparatively unknown man makes such a demand, his success will probably be small, and properly so. A man must show he has money before calling on the public to bank with him. To obtain as much as possible from a library, you should bring as much information there as you can, and have it in as clear and definite a form as possible. Note upon a slip of paper the books you wish to see, giving their titles concisely but clearly, so that they may be easily found. Consult the *Index Catalogue* so far as published, the *Index Medicus*, and the bibliographies attached to the articles in the modern French and German encyclopædias, and it will be strange if you can find no titles which will put you on the right road. Remember that the *Index Catalogue* is not a bibliography. Dr. Billings said that he might some day have occasion to write on its uses and abuses, in which case the main point would be that it must be used for a time before you can judge of its merits.

Having prepared the list of references to be consulted, which had best be written on cards of uniform size, the next thing is to get the books. A visit to Washington, when possible, is the best thing; much time will be saved if a list of the books desired be sent by mail to the librarian the day before the visit, so that they may be laid out ready for examination. Where a personal visit is impossible, the best thing is to get a

library which has means of safely caring for the books, and will be responsible for loss or damage, to borrow them, the applicant, of course, paying the expenses.

At present it is a part of your duty also to see that your Washington library is made and kept as complete as possible. In the first place, it should have every new medical book, journal, report, or thesis, in every language, as soon as possible after its publication. You ought to be certain of finding in this our national medical collection the latest literature upon any subject connected with medicine; and everything noted in the *Index Medicus* should be upon its shelves. Now, to effect this would require an appropriation of from seven to eight thousand dollars a year. The medical journals and transactions relating to medicine and the allied sciences will alone cost about \$2,500 per annum. In the second place, the deficiencies in the library should be gradually supplied as opportunity offers. The amount and character of these deficiencies are a matter of some interest. In order to obtain some data on this point, I have compared the catalogue of the Washington Library with those of the two largest collections of books in existence, viz., the British Museum of London and the Bibliothèque Nationale of Paris. Taking the fasciculi of the catalogue printed by the British Museum in 1881-82, I find that, on 1,140 pages, containing about 34,000 titles, exclusive of cross references, there are the titles of 657 books and 880 inaugural theses relating to medicine. Comparing these with the corresponding portions of the Washington Catalogue, it is found that the British Museum has 262 medical books, 372 medical theses, and 118 different editions which are not in the Surgeon-General's Library. On the other hand, the Surgeon-General's Library has 285 books, 342 theses, and 88 different editions which are not in the British Museum. There are common to both libraries 277 books and 508 theses. The two libraries, therefore, appear to be nearly equal as regards medical books. This is exclusive of medical journals, transactions, and reports in which the Washington Library is much the richer. The following tables show in detail, by countries and periods, the difference between these collections as regards medical books:

The Catalogue of the Medical Section of the Bibliothèque Nationale in Paris, is arranged by subjects and not by authors, does not include inaugural theses or dissertations, and was published in 1857-73, hence it is not possible to make an exact comparison between it and the *Index Catalogue*, or that of the British Museum. But taking the general subjects, anatomy, diseases of the eye, and cholera, I have prepared a table showing the results of a comparison of the two catalogues, from which it appears that in the first three subjects named, 199 books are common to both, 416 are in the Washington collection only, and 483 in the Paris collection only. On the subject of cholera (excluding treatment), 194 books are common to both, 745 are in the Washington Library only, and 272 in the Paris Library only. The books which the Paris Library has, and our own Library has, are not for the most part old books, dating before 1800, or French books which come to the Library, under the law which requires one copy of every French publication to be deposited there.

This law is not strictly obeyed, for we have in our Library 79 French works on cholera, which are not in the Paris Catalogue—but it is due to this law that the Medical Section of the National Library of France, is essentially French and not cosmopolitan.

As the result of these comparisons, I think it is safe to conclude, that the Library of the Surgeon-General's Office in Washington not only contains more medical literature than the British Museum or the National

Table giving results of a comparison of 1140 pages of the British Museum Catalogue in the letters A and C, with the corresponding pages of the Index Catalogue of the Library of the Surgeon-General's Office, U. S. Army, Washington, D. C.

BOOKS.	UN. STATES.			ENGLAND.			FRANCE.			GERMANY.			ITALY.			SPAIN.			OTHERS.			TOTAL.		
	Both.	Surgeon-General's Office only.	British Museum only.	Both.	Surgeon-General's Office only.	British Museum only.	Both.	Surgeon-General's Office only.	British Museum only.	Both.	Surgeon-General's Office only.	British Museum only.	Both.	Surgeon-General's Office only.	British Museum only.	Both.	Surgeon-General's Office only.	British Museum only.	Both.	Surgeon-General's Office only.	British Museum only.	Both.	Surgeon-General's Office only.	British Museum only.
Prior to 1600, . . . .							3		3	5	3	12	7	5	14				1		3	16	8	34
1600-1799, . . . .				20	8	17	10	4	9	29	9	16	6	2	12				1	2	4	66	25	62
1800-date, . . . .	13	63	3	80	41	64	32	57	42	57	52	43	3	14	7	1	3	3	6	22	4	192	259	166
Editions not in Library, but of which it has the book,		32	4		30	71		8	9		12	14		3	12				1	8		3	88	118
Total books, . . . .	13	95	7	100	79	152	45	69	63	91	76	85	16	24	45	1	5	9	8	25	19	277	373	380
Theses, . . . .																								
Prior to 1600, . . . .												4										2		6
1600-1799, . . . .	1	1		6	18	1	3	1	21	89	60	76							5	11	16	104	91	114
1800-date, . . . .	1	4	1	3	14	2	412	69	223	39	177	11		9						47	6	404	251	252
Total theses, . . . .	2	5	1	9	32	3	415	70	244	128	237	91		9					5	58	24	508	342	372

NOTE.—Periodicals, transactions, and reports of medical institutions excluded.

Table showing results of comparison of the Medical Section of the Catalogue of the Bibliotheque Nationale, Paris, with the Index Catalogue of the Library of the Surgeon-General's Office, U. S. Army, for the subjects Fevers, general treatises, and Cholera.

ANATOMY, FEVERS, AND EYE DISEASES.	UN. STATES.			ENGLAND.			FRANCE.			GERMANY.			ITALY.			SPAIN.			OTHERS.			TOTAL.		
	Both.	Surgeon-General's Office only.	Paris Catalogue only.	Both.	Surgeon-General's Office only.	Paris Catalogue only.	Both.	Surgeon-General's Office only.	Paris Catalogue only.	Both.	Surgeon-General's Office only.	Paris Catalogue only.	Both.	Surgeon-General's Office only.	Paris Catalogue only.	Both.	Surgeon-General's Office only.	Paris Catalogue only.	Both.	Surgeon-General's Office only.	Paris Catalogue only.	Both.	Surgeon-General's Office only.	Paris Catalogue only.
Prior to 1600, . . . .				1	2		5	3	17	7	2	2	17	10	24				6	6	11	36	23	58
1600-1799, . . . .		1		18	40	13	21	13	65	13	31	10	7	16	1	1	1	5	27	23	27	90	116	156
1800-date, . . . .	1	46		5	45	2	41	8	60	17	62	6	7	9	5		4	2	2	18	13	73	192	88
Different editions, . . . .		7	1		24	14		11	91		18	27		2	21			3		20	26		85	181
Total, . . . .	1	54	1	24	111	29	67	35	233	37	113	65	34	28	66	1	8	12	35	67	77	199	416	483
Cholera, . . . .	2	85		18	130	11	142	79	219	17	272	5	104	64	30		4		5	111	7	194	745	272

NOTE.—Theses and reprints excluded.

Library of France, but that it covers a wider field, represents better the medical literature of the whole world, and is decidedly a better practical reference and working collection for medical purposes than either of the great libraries referred to. Each library is, as might be expected, richer in the literature of its own country, but the French Library is comparatively poor in English and German medical books, and has almost nothing in American medical literature, while the English Library is also poor in American literature, and comparatively weak in German medicine of the present century. Both of them are rich in the literature of the fifteenth and sixteenth centuries, and have many editions of older works, of which the Washington Library has only one or two. Both of them have been

in existence for over three hundred years, and have had almost unlimited funds for the purchase of books.

Why, then, is it that they do not contain all medical books which have ever been printed, and that your medical library in Washington, which is only about twenty years old, and has never had in any one year funds sufficient to purchase more than two-thirds of the medical books printed in various parts of the world during that same year; should already be equal if not superior to them in practical value? It appears to me that it is very largely due to the fact, that while the Washington Library is the national collection, it has been kept separate from the general national library. The result of this has been, that the medical profession has taken much more interest in it than they would do



if, as is the case with the English and French medical collections, it was merely a section of the National Library.

As a matter of fact, comparatively little use is made by medical writers of the collections in the British Museum or the Bibliothèque Nationale. They consult, in preference, the special medical libraries in London and Paris, which are under the direction of medical bibliographers, such as the libraries of the Royal College of Surgeons or of the Medico-Chirurgical Society, or those of the Faculty of Medicine or of the Academy of Medicine of Paris. It is to such special libraries that physicians give their books and pamphlets; and the rapid growth of the Washington Library is largely due to this cause. There is pouring into it a steady stream of literature, the sources of which are by no means confined to this country, although, of course, the largest part comes from the United States.

Those who incline to pessimistic views of human nature, and to attribute all the actions of men to selfish motives, would not find their views confirmed by my experience. I could name a number of gentlemen who take almost as much interest in the library as if it were their own, and who are constantly on the lookout to supply its deficiencies.

Now, so long as the library can preserve and extend this feeling of interest in its completeness, so long it is sure to grow in value and usefulness; but if it be merged into a general national library, this interest will rapidly diminish. It is not to be expected that the manager of a large miscellaneous library, if well fitted for his position by a knowledge of general literature, should also be familiar with the various departments of scientific literature. As the modern Greeks say, "two watermelons cannot be carried under the same arm," and no subordinate or assistant will have the same stimulus to do good work that the man who is responsible in the eyes of the public will have. I think, therefore, that you will do well to see that a proper and commodious fire-proof building is provided for your Washington collection, that it is not merged with the Congressional Library, and that it is granted sufficient funds to enable it to secure all new medical books as they are published, and gradually to collect the best of the older literature.

It is supposed by some that this library receives a copy of every medical book published in the United States. This is not the case. Under the copyright law, two copies of every copyrighted medical book are deposited in the library of Congress, but no copy comes to the library of the Surgeon-General's Office. It seems to me that the law should be so amended as to make our library the place of deposit for one of the copyright copies, and this is a matter to which I invite attention. The keeping of this library complete is one of the most valuable means of advancing medical science in this country, now in our grasp, and it is within our grasp if the medical profession of this country choose to exert their influence for this purpose. The opportunity now presented for placing this matter on a proper and permanent basis will not occur again. There are not two springs in a year, nor in the life of a nation, and if the spring work be not done in time, the fruits of summer and autumn will be correspondingly deficient.

Dr. Billings said he liked the quaint, old-time name "Medical and Chirurgical Faculty of Maryland." While all real universities have other faculties, as of law, theology, and so forth, the term "*The Faculty*," applies only to medicine. This meaning of the term originated in Paris, where those who graduated as doctors graduated as teachers also, and the Faculty was composed of all the graduated doctors of medicine of the university. Thus the faculty of physic alone of

all the other faculties of the university formed not only a corps for instruction, but also a body exercising a liberal profession, of which they had the monopoly, lucrative and honored, accessible as a rule only to the upper middle classes, and brought into continual relations with the public. Thus it came to be known as "*The Faculty*." Let the Faculty of Maryland preserve not only the name but the best of the tradition, such, for example, as that the doctor be an educated man, as his name implies. It is to be hoped that the higher medical education which the university is soon to organize will include instruction in bibliographical and historical methods. This will make the Washington library a very important aid to the university and prove a stimulus to the Baltimore collection.

#### SECTION ON GYNECOLOGY AND OBSTETRICS.

DR. WM. T. HOWARD, *Chairman*, made a lengthy report, illustrating his subject by stereopticon views thrown on the screen. He spoke of a number of gynecological operations, and concluded by a strong argument in favor of Tarnier's forceps.

This was followed by a supplementary report from the

SECTION ON MATERIA MEDICA AND CHEMISTRY,  
by DR. JNO. T. LYNCH, who read a paper entitled

OBSERVATIONS ON THE ANTIPYRETIC EFFECTS OF CARBOLIC ACID; AND ON THE ASTRINGENT INFLUENCE OF RUBUS PROCUMBEUS IN DIARRHŒA AND DYSENTERY.

He said that, having had his attention called to the remarkable effects of carbolic acid in lowering the temperature in and apparently shortening the duration of enteric fever, by reports in the London *Lancet*, he had, during the past three years, experimented largely with this substance. He would not, however, go into the details of the cases treated, though he could speak of several hundred, but would briefly give the results of his observations. In his early experiments, the dose used was small, but it was subsequently increased, until, finally, as much as five grains was given every two or three hours, and thus far no toxic effect had ever resulted from these large doses.

The formula now used is:

Acidi carbolici,	. . .	3j.
Tr. aconiti rad.,	. . .	ʒss.
Glycerini,	. . .	q. s. ad ʒjss.

Sig. Teaspoonful every two, three, or four hours, according to the temperature.

The tincture of aconite root was added as a heart sedative, as the carbolic acid did not seem to possess this quality. Dr. Lynch said that he had used these doses in all kinds of fevers, and found them fail less frequently than any other antipyretic, except the cold bath. It seemed to be precisely in those cases which quinine fails to control that carbolic acid is most effectual and reliable. Of this, Dr. Lynch mentioned a striking case, and added that, in purely inflammatory fevers, it does not show such complete control over the fever temperatures as in the purely idiopathic or essential ones, though it is still very useful. In enteric or typhoid fever, it seems especially applicable, preventing diarrhœa and tympanites, depriving the fecal discharges of the characteristic fetid smell, and, above all, entirely preventing the secondary fever. It also cuts short the disease. In septicæmic fever, too, the acid seems to act with a certainty and energy far superior to quinine. Dr. Lynch then gave in detail a case in which the two drugs were successively used, the carbolic acid contrasting favorably with the quinine.

On the use of *Rubus procumbens*, Dr. Lynch re-

marked that, although many of the old-fashioned remedies had given place to drugs and extracts containing the same active principles, they were sometimes far from producing the same satisfactory results. In his own experience, he had obtained most excellent results from the use of fluid extract of dewberry root in obstinate diarrhoea during phthisis, and also in the summer diarrhoea of infants. It has an effect far surpassing tannic acid, and seems to act as a specific. He has lost no case from the summer diarrhoea of children since he has used this drug.

APRIL 27.—FOURTH DAY.

DRS. H. NEWELL MARTIN and LEWIS T. STEVENS read a paper on

#### THE DIRECT ACTION OF ALCOHOL UPON THE HEART.

The authors experimented with the heart of the dog, isolated from all of the body but the lungs, in the manner previously described by one of them. The heart was nourished with defibrinated blood, then blood containing one-eighth, one-quarter, or one-half per cent. of absolute alcohol supplied to it, and finally good blood again. They find:

1. Alcohol in the above doses has no influence on the pulse-rate.

2. As regards the work done by the heart in a minute, blood containing one-eighth per cent. of alcohol is without effect, at least for five or ten minutes; but blood containing one-quarter per cent. of alcohol nearly always, and that containing one-half per cent. always greatly diminishes the work done. If the supply of alcoholized blood be not too long continued, the heart can be recovered by feeding anew with pure blood.

3. The diminution of work is due to an alteration in the elasticity of the cardiac muscle, in consequence of which the heart swells out, so that even in its systole it nearly or quite fills the pericardiac bag. Hence, in diastole, it cannot dilate further to receive a fresh supply of blood.

4. If the pericardium be removed, the above doses of alcohol are without effect on the work done, at least for a considerable time; the heart, however, swells enormously, and beats in a quite unphysiological manner, never obliterating its ventricular cavities in systole.

In a paper on

#### SOME FORMS OF LARYNGEAL PARALYSIS,

DR. J. D. ARNOLD described two cases in his own practice. The first case was that of a young lady, æt 19, who had for three years suffered from almost total loss of voice supervening on a severe attack of diphtheria. Faradism and galvanism with strychnia given subcutaneously in medium doses, had been persisted in for fourteen months without any manifest improvement. On examination with the laryngoscope, Dr. Arnold found the larynx normal in development and healthy in color and contour. The excursions of the cords and arytenoids were natural in amplitude, but upon attempted phonation, the left cord remained nearly immovable, whilst the right advanced slightly beyond the median line. After various experiments, Dr. Arnold found that upon touching the intra-arytenoid space with the tip of a sound, short isolated cough-acts were produced, at which times the cords met in the middle of the glottis for an instant, and further, he found that the cough so produced *had tone*. He diagnosed a case of functional paresis, perhaps of an hysterical nature, and not of true diphtheritic paralysis. The patient appeared in robust health, so the treatment used was merely local. He applied a very weak faradic current four times a week, which, with short intermissions at intervals of ten or fifteen seconds, was

applied for ten and twenty minutes, and immediately afterwards the intra-arytenoid space was lightly brushed with a delicate elastic whalebone sound. Each touch occasioned a sudden flying together of the cords, succeeded by the violent expiratory act of cough. After three weeks of this treatment, she acquired the power of giving tone to the vocal *a* (German inflection), and so, little by little, regained the whole range of vocal sounds, so that in less than three months from the commencement of treatment, she could sing as well as speak in a full, clear tone, and the voice had gained all its original compass. Twenty-one months afterwards, she had a relapse after a powerful emotional impression caused by the illness of a brother. This time the loss of voice was not complete, and the attack yielded to a few days' treatment and has not since recurred.

The other case was that of a married woman, forty-five years of age, who had suffered for several years from attacks of sore throat. The last attack had not yielded to the usual remedies, but had grown worse, until her voice was reduced to a whisper, broken occasionally by hoarse, guttural tones. She had also a harassing cough and great pain in swallowing. On inquiry, he found that she had had three healthy children, but during the last seven years had had five miscarriages, and this fact, though unsupported by any other symptoms, induced him to give her the benefit of an anti-syphilitic treatment. The larynx, when first examined, exhibited the following appearance: Epiglottis somewhat depressed and of a deep-purplish color, right arytenoid and ventricular band dusky, but of normal contour, the right cord crimson in hue and slightly thickened. The left arytenoid was swollen to about twice its natural size, and felt firm and unyielding to the sound; the left vocal cord was nearly invisible, and, except at the anterior third, was covered by a red, angry-looking tumor which seemed to spring from the ventricle. There appeared to be no loss of continuity in the mucous membrane anywhere in the larynx. When the patient attempted to phonate, the whole left side of the larynx remained immovable. He was led to suspect that the apparent tumor was in reality a prolapsed ventricle, and was in fact successful in returning it to its place with the sound, when there came into view beneath the cord, unbroken on its surface but red and tumefied like its fellow. The slightest cough, however, or effort to produce phonation forced the ventricle back to its former position. Dr. Arnold pursued a constitutional treatment in this case, and strictly enjoined disuse of the voice. He also insufflated one-fourth of a grain of morphia with starch (to allay the cough) every day, and immediately afterwards replaced the ventricle, which was always displaced by the cough brought on after the insufflation. The local treatment consisted also in the application to the ventricle of a few drops of tinct. iodine and glycerine in equal amount at each visit. The patient improved rapidly, and in about three weeks was able to speak for some minutes in a low, quiet tone, whilst the larynx had to a large extent regained its normal appearance. In six weeks from the time the case was first seen, he had occasion to replace the ventricle for the last time. She is now almost entirely well.

#### SECTION ON PSYCHOLOGY.

DR. RICHARD GUNDRY read a paper on

#### PROGNOSIS IN INSANITY.

He said that certain symptoms render the prognosis absolutely unfavorable. The age of the patient may exercise some influence; youth being more favorable than old age. Insanity of children complicated by epilepsy, etc., is generally incurable. Propensity to suicide in children from apparently slight causes is

seldom suspected until carried into effect; when early recognized, it seems amenable to treatment. In his own cases, the largest percentage of recovery occurred in patients under twenty, the next highest between forty and fifty. Over sixty, the proportion sensibly decreases. While females seem more likely to recover than men, they run greater risks and are more liable to relapses. This is largely due to the incessant cares of a mother in the lower classes and the listless inertia of women in the more comfortable classes. A material influence is exerted on the prognosis by the previous mental training and habits of the patient, whether his mind has been so disciplined as to exercise control over himself and his passions, or whether the emotions have attained mastery. Habits of self-denial and thoughtfulness for others, and strong sense of duty are great aids in the struggle towards restoration. Men of high grade of intellectual capacity suffer less from insanity, and when they suffer recover more readily, and a lofty aim in life has contributed much toward mental health. The earlier treatment is begun, the more hopeful is the prognosis. Hereditary influence does not preclude hope of recovery. A main factor is to be found in the distinction of mental disorder occurring in a previously duly developed normal brain with normal functions, or in a brain with abnormal functions due to inherited predisposition or other morbid constitution. The various periods coincident with physiological development, and so forth, may eventuate the attack. Puerperal mania is generally considered curable and leaves but little trace in cases where some cause is added, which would of itself have produced insanity, as some toxæmic influence or great moral depressing agency. Where the state itself appears to be the cause, the final prognosis is unfavorable. He proceeded to speak of various forms of insanity with their prognosis. Insanity occurring after the normal development of the brain and its functions presents a more favorable point of view. He included in this melancholia, in all its phases, and mania. Acute melancholia, however, is rapidly fatal. Dementia as a primary form is essentially curable; it is difficult, however, to distinguish it from the secondary form, which is incurable. General paralysis of the insane has an entirely bad prognosis. Syphilitic insanity, early discovered, is usually amenable to treatment. Rapid invasion of the disease is more favorable than gradual incubation. A sudden apparent recovery is not so favorable as a gradual return to health. The most favorable symptom is when the patient recognizes that he has been insane.

DR. S. C. CHEW presented

#### A CASE OF DEXIOCARDIA.

When he first saw the case, he supposed, after a hasty examination, that it was due to a left pleural effusion having pushed the heart to the right side of the chest. On further examination, it was found to be caused by disease on right side of the chest, the heart being carried over by the contraction of the right side after absorption of pleural effusion. The right side measures seventeen inches in circumference, the left eighteen. The lung itself has become affected with fibroid disease, and now contains vomicae. The heart beats in the right mammary line, or a little beyond it.

The first case of this kind is reported by Dr. Stokes (1841-42).

#### EXCISION OF SUPERIOR MAXILLA.

DR. F. McLANE TIFFANY presented a patient, a girl, whose right superior maxillary bone he had excised, removing the bone from the left lateral incisor to the second molar. He said that it was usually the custom, when the whole bone or a large portion of it was to be removed, to perform tracheotomy, and to

plug the throat with cotton to prevent suffocation from the bleeding. Tracheotomy was supposed also to lessen the danger of septic poisoning, the breath passing not over the wound, but through the tracheal tube. Billroth has, however, lessened greatly the mortality after operation in the mouth by the use of iodoform, showing that cleanliness is what is needed, and not tracheotomy. Dr. Tiffany had once, in this operation, performed tracheotomy from its supposed necessity. In this patient, he had adopted a different plan. Anæsthesia having been induced by ether, he placed the patient on the face, the shoulders and body projecting beyond the table, and supported by two assistants, and the head supported by a third. When the body is so slung, it does not interfere with respiration. He operated with a lateral light, holding the head towards it. In this way, the blood runs out of the mouth, and suffocation is not induced. The history of the case is as follows: Three years ago, it was noticed that her jaw was swollen. There was no pain, and the swelling increased slowly. For a month before the operation the swelling grew with great rapidity. The bony roof of the mouth was largely destroyed, and the growth was covered over only by mucous membrane. The tumor was elastic to the touch. The operation was done in the position above described. It was now just four weeks and two days since the tumor was removed. The wound had not quite healed, but was healthy and granulating. The microscope showed that the growth was spindle-celled osteo-sarcoma.

In a paper on

#### SUBCUTANEOUS NERVE-STRETCHING AS A TREATMENT FOR SCIATIC NEURALGIA,

DR. J. W. CHAMBERS said that this operation was first introduced to the profession by Prof. Billroth early in 1882. It consists in placing the patient flat upon his back with the leg extended, the thigh is then strongly flexed upon the abdomen. Dr. Chambers described three cases in his own practice, in all of which a complete cure was effected, and also four other cases furnished by Dr. Coskery and Dr. Jones, of Frostberg, Md., three of which were cured, whilst in the fourth scarcely any improvement took place. He also cited four other cases from the journals, in two of which a favorable result was obtained, whilst the other two were not much affected. From all these cases Dr. Chambers drew the following conclusions: 1. That in obstinate cases of sciatic neuralgia the subcutaneous stretching of the sciatic nerve is highly satisfactory. 2. That from effects produced by the subcutaneous method, it is highly probable that all required force can be obtained. This he had also proved by experiments upon the dead subject. 3. The sciatic nerve could by this method be sufficiently stretched to produce anæsthesia. 4. That moderate elongation of a nerve impairs its sensory, and but little, if at all, its motor functions. 5. That considerable force may be applied to a nerve trunk without seriously impairing its motor functions. 6. That it is not necessary or justifiable to employ more force than just enough to produce anæsthesia.

DR. JOHN MORRIS said that he had seen the operation of nerve-stretching by Dr. R. Winslow once when it was cut down upon and then stretched. This was followed by a perfect cure. Five days before, the subcutaneous operation had been performed on another of his patients. The knee had been brought over so as to touch the abdomen. There had been great pain since, not only from the stretched muscles, but from the nerve below the knee.

DR. CHAMBERS replied that no operation could pretend to cure all cases of a disease. Sometimes cases of supposed sciatica were really cases of neuritis, in



which case no good could have been done. He thought that in Dr. Morris' case the nerve may have been too much stretched. He had found this was followed by pain. In comparing the subcutaneous stretching with the other operation, he said it was much safer, and there was less danger of such great stretching as would cause disturbance not only of the sensory, but also of the motor and even trophic elements of the nerve, as had occurred in the history of the more serious operation, death occurring after sloughing.

DR. G. HALSTED BOYLAND read a paper on

#### HYPNOTISM,

which considered, 1st. *Its danger*; and 2d. *Its remedy*.

DR. RICHARD GUNDRY said that it should be regarded as a crime for a physician to leave a hypodermic syringe in the hands of his patient. He had seen most disastrous results from this practice.

#### FIFTH DAY.—APRIL 28TH.

DR. ST. GEORGE W. TEACKLE read a paper on

FACTS RELATING TO THE CASES OF SPONTANEOUS COWPOX IN BALTIMORE CO., AND THE RESULT OF EXPERIMENTS WITH CRUSTS OBTAINED THEREFROM.

He began by saying that he had been requested in last January, in company with DR. J. R. WARD, of Gavanston, to visit a gentleman's farm, to pass an opinion on a disease affecting the udders of his herd of Alderneys. On examining them, he found them to be suffering from cowpox. The four cows affected presented the disease in its various stages. No. 1, first affected, had dried, semi-hard crusts, considerably smaller than when produced by inoculation, but beautifully cupped. Nos. 2 and 3 presented vesicles becoming pustular, and pustules; No. 4, a few papules. The eruption was confined to the bags and udders (mostly the udders). The number of points of eruption was not numerous. The history was that, while thirsty and restless, their appetites were good.

The following facts were elicited: (1) No fresh additions had been made to the herd, except that six months before a cow had been sent to Connecticut, to a celebrated bull, but inquiry showed there was no disease among the cattle there; (2) no disease of the kind had prevailed on the farm; nor (3) had any one there been vaccinated within six months; (4) there was no smallpox patient or vaccine farm within a radius of three miles, nor had any one visited a variolous patient. Dr. Teackle concluded from this that case No. 1 was one of spontaneous cowpox. He had vaccinated, moreover, five primary and three secondary cases with portions of the crust of case No. 1, with two failures (one primary, one secondary). The cases that succeeded were markedly severe in their action, especially in the febrile symptoms, also in the glands.

Owing to circumstances over which Dr. Teackle had no control, he was not able to obtain all the matter from these cows he desired; but having encased some of the crust he had taken at his first visit in wax, he inoculated (April 20th), in the presence of Drs. Stuart and Morris, a heifer, eight weeks old, with it. He felt confident that further propagation of this new stock would cause a return to the confidence in bovine virus, which has recently been sadly shaken.

DR. JNO. S. LYNCH doubted the spontaneous origin of the affection, and thought it most probably had been caused by inoculation of smallpox virus, perhaps conveyed by people who had milked the cows by stealth, unknown to the proprietor. Spontaneous origin of smallpox or vaccinia was unknown.

DR. TEACKLE replied that these cows were kept as carefully as race-horses, and never without an attend-

ant. Such a mode of conveyance as suggested was out of the question.

THE PRESIDENT referred to the fact that, at the time of the discovery of vaccination, and during the experiments which followed it, it was very nearly proved that the discharge from the hoofs of horses in the disease called grease would produce nearly the same effect as vaccinia in the cow. Might not the disease have been conveyed from the horses to the cows by the grooms? On motion of Dr. John Morris, seconded by Dr. Teackle, a committee of five was appointed to examine and watch the course of the vesicle in the heifer presented, and report to a future meeting.

DR. JNO. N. MACKENZIE then read a paper entitled

#### SOME REMARKS ON NASO-AURAL CATARRH AND ITS RATIONAL TREATMENT.

He commenced by speaking of the great prevalence of the disease in Baltimore, and remarked that it is, perhaps, the least perfectly understood of the prevalent diseases. After giving a very minute description of the disease, which he divided into two stages—first the hyperæmic and second the hypertrophic stage—and describing its various forms very minutely, with their effects upon respiration, phonation, and olfaction, he spoke of its connection with pulmonary emphysema and chronic laryngitis, and expressed his opinion that, under certain conditions, nasal catarrh may favor the development of consumption. He regarded the inflammation of the conjunctiva, so often observed in connection with nasal catarrh, as caused not by the extension of the inflammation, but, in the majority of cases, as a reflex vaso-motor phenomenon. He considered that frequently chronic catarrhal inflammation of the middle ear depended upon the changes induced through the Eustachian tube secondary to chronic nasal catarrh. Morbid conditions of the nose, however, react in another way upon the circulation and nutrition of the aural chambers, viz., through reflex agency of the vaso-motor and trophic nerves.

Dr. Mackenzie emphasized especially the *great frequency* of reflex cough as a symptom of nasal disease, and he has found in the nose a reflex sensitive area analogous to that discovered in the larynx by Störk, etc.

Systematic treatment is a *sine qua non* for the successful management of chronic nasal inflammation. This may be divided as follows: 1. Removal of all obstructions. 2. Thoroughly cleansing and keeping clean the nasal and retro-nasal chambers. 3. Treatment on general principles of the congested and inflammatory conditions of the naso-pharyngeal membrane. He limited his remarks largely to the question of the removal of the hypertrophied membrane. As a rule, he prefers in this operation the employment of the cold steel wire snare. The operation fulfils in the simplest and most radical manner the chief indication for treatment, which is the removal of obstruction—it restores the respiratory current to its normal channel, and removes the most prolific source of the discharge. In most cases it causes the various complications, especially those of a reflex character, to disappear, and by the depletion of the cavernous cells of the turbinated bodies, it exercises a beneficial effect upon the whole area occupied by the erectile tissue. He then spoke of the second principle of treatment—cleansing—objecting strongly to the nasal douche. He gave several remedies which he had found of value in the treatment of nasal catarrh; among others, diluted alcohol, and weak solutions of bichloride of mercury, and the tincture of galanga, he objected to the use of powders, unless in an impalpable state; where there were excoriations or ulcerations, he had found the powder of calendula dusted over raw surfaces, or applied as a

glyceride, to cause rapid healing and diminution of the discharge. During inclement weather, or when exposed to a vitiated atmosphere, he recommended, when the discharge is not profuse, a respirator of absorbent cotton—medicated or not, teased gently apart in the fingers; this teasing is very important. It is then folded lightly upon itself, and introduced into the nostril just beyond the orifice of the anterior naris. He strongly recommended oakum as a substitute for the cotton tents usually employed; he also advocated constitutional treatment. He then considered the subject of catarrhal otitis media, and concluded by showing forceps of his own device for the removal of adenoid growths. The blades are fenestrated, and slightly flattened posteriorly and superiorly to admit of perfect contact with the walls of the pharynx. Their cutting edges prolonged downward to the shank, are on the principle of the Luer bone nippers; each blade may be used as a curette, the other being fixed. The instrument may also be used for removing growths from the throat, etc.

DR. H. P. C. WILLIAMS read a paper entitled

#### MALARIAL FEVER IN PUERPERAL WOMEN,

giving an account of three cases. The first, a primipara, after a hard instrumental labor, was delivered of a large child with life extinct. There was laceration of the cervix and rupture of the perineum. Vaginal injections were ordered, and equal parts of tinct. of camphor and belladonna were applied to the breasts to prevent the secretion of milk. After three days the belladonna was discontinued. It was a point of interest that two days thereafter distinct symptoms of belladonna poisoning—dilated pupils, tingling, and the surface of the body becoming bright scarlet and very hot—made their appearance. The symptoms were promptly checked by the exhibition of morphia and potass. brom. Several days after this she had symptoms that at first appeared to point to septic poisoning, but from the regularity of the fever and its wide range, Dr. Williams was inclined to think it malarial. Large doses of quinine, however, did not check it at first, and it was not until six grains were given every second hour, and twelve doses had been administered, that the fever was broken. After this she went on to recovery. Another interesting point in the case was, that though the perineum had not been sewn up after the birth of the child on account of the weakness of the mother, it was found to have been almost completely restored spontaneously.

The other two cases, though not so severe, corresponded with this in the occurrence of fever, that at first seemed alarming as occurring in that condition, but which yielded promptly to quinine. Dr. Williams explained the occurrence of malarial fever on the supposition that, though they all seemed in perfect health at the time of their confinement, the malarial poison was in their systems, and the depression of their vital powers caused it to make its appearance.

#### REPORTS OF COMMITTEES.

DR. T. BARTON BRUNE, *Chairman of the Committee on Nurses' Directory*, made an encouraging report. A small balance had been turned into the general treasury for the use of the library, as had been ordered by the Faculty. Dr. Brune hoped that the physicians of the city would support the *Directory* to a greater extent than they had done in the past.

The *Committee to Interview the Trustees of the Peabody Library*, in regard to procuring more medical books for the library (Dr. J. J. Chisolm, Chairman), reported that the Trustees had replied that, with the funds at their disposal and with the terms of their trust, they could not procure books for their library for any

special branch of professional men, but would be glad to purchase books on medicine that would be of general interest and importance. The Committee was continued to interview the projector of the Enoch Pratt Library on the same subject.

As owing to some mistake the resolutions passed last year reaffirming the faculty's allegiance to the *Code of Ethics* of the American Medical Association had failed to reach that body, DR. WILLIAM LEE moved a similar resolution to be sent to the Association this year, which was adopted.

DR. RICHARD GUNDRY moved "that a committee of five be appointed by the Faculty to represent to the Legislature of Maryland the urgent need of an institution for the care and education of feeble-minded children." Adopted.

On motion of Dr. J. R. Quinan, a vote of sympathy was passed with Dr. J. Shelton Hill, for his protracted illness.

The *Publication Committee*, in a special communication, informed the Faculty that Dr. J. R. Quinan had in accordance with the request of the Faculty in 1881, prepared a full and complete history of medicine in Maryland, giving biographical accounts of the physicians of the State, and a list of their contributions to medical literature, etc., with a subject index of their writings. The work was described as being very exhaustive—extending considerably over one hundred years. The committee recommended that as the work will comprise over two hundred pages octavo, that it be published separately, as a supplement to the *Transactions*, and that one thousand copies be printed, and a copy given to each member of the Faculty who has paid his dues, and that one hundred copies be given to the author, and the remainder be sold at one dollar per copy to assist in defraying the expenses of the publication. These recommendations were unanimously adopted, except that it was ordered that two hundred instead of one hundred copies be given to Dr. Quinan. The thanks of the Faculty were tendered to the author.

The following were elected

#### OFFICERS FOR THE ENSUING YEAR:

*President*.—DR. RICHARD MCSHERRY.

*Vice-Presidents*.—DRS. W. STUMP FORWOOD and JNO. S. LYNCH.

*Recording Secretary*.—DR. G. LANE TANEYHILL.

*Assistant Secretary*.—DR. ROBT. T. WILSON.

*Corresponding Secretary*.—DR. W. F. A. KEMP.

*Reporting Secretary*.—DR. R. H. THOMAS.

*Treasurer*.—DR. JUDSON GILMAN.

After a vote of thanks to the President for his able presiding over the meeting, and thanks to the Johns Hopkins University for the use of Hopkins Hall, the Convention adjourned *sine die*.

#### MISSISSIPPI STATE MEDICAL ASSOCIATION.

*Sixteenth Annual Session, held at Meridian, April 4, 5, and 6, 1883.*

(Specially reported for THE MEDICAL NEWS.)

THE Sixteenth Annual Meeting of the Mississippi State Medical Association was held at the Opera House, in Meridian, April 4, 5, and 6, the *President*, DR. WIRT JOHNSTON, of Jackson, being in the chair.

FIRST DAY. APRIL 4.—The Association was called to order at 11 o'clock, A.M.

After prayer by Rev. Joseph Bardwell, D.D., DR. J. H. BLANKS, *Chairman of the Committee of Arrangements*, introduced COL. W. H. HARDY, of Meridian, who delivered an eloquent and scholarly address of welcome.

The roll was then called by the *Secretary*, DR. T. W. FULLILOVE, and about fifty members answered to their names. During the session twenty-nine physicians were elected members of the Association.

The *PRESIDENT*, DR. WIRT JOHNSTON, delivered the

#### ANNUAL ADDRESS.

He congratulated the Association on its substantial growth and flourishing condition, and proceeded to review the work of the Association, which had resulted in the establishment, by legislative enactment, of a State Board of Health, which has been "clothed with ample power, has abundant resources at its command, and is in a position to render efficient service to the State," and also in the law recently enacted to regulate the practice of medicine in the State. "A law," said he, "which, if it should continue in operation, and is wisely administered, is sure, in the course of time, to elevate the character of the profession. It will not only accomplish this, but will also result in even more good to the people of the State, as by it they will be protected in life from the ignorance of the incompetent, and, in purse, from the cupidity of quacks."

He then proceeded to give some interesting statistics, which the operation of the law had developed. Under Section 17 of the law, all physicians of whatever school, engaged in the practice of medicine at the date of the passage of the law (approved by the Governor, February 28, 1882), were granted license without examination by a board of censors, provided the application for license should be received by the Secretary of the State Board of Health on or before June 30, 1882. The law requires each license to be registered, within thirty days after it is issued by the Secretary of the State Board of Health, in the office of the Circuit Clerk of the county in which the licentiate resides. After June 30, 1882, no one could be granted a license without presenting a certificate of having passed a favorable examination by the Board of Censors of the Congressional district in which the applicant resides. There are two Sanitary Commissioners for each Congressional district (appointed by the Governor, on the recommendation of the State Medical Association), who are members of the State Board of Health, and *ex officio* constitute the Board of Censors of their respective districts.

The following are the statistics:

Number of licenses issued under Section 17, .	1785
" " " after examination, .	55
Total number of registered physicians, .	1840

Each licentiate is required to designate, in his application, the school of medicine to which he belongs. This has been done, with the following result:

Regular, 1581; eclectic, 84; Homœopathic, 11; botanic, 7; botanic and eclectic, 4; allopathic and mineral, 5; eclectic and allopathic, 8; mineral, 11; allopathic and botanic, 2; eclectic or reformed, 1; hydropathic, 1; eclectic, allopathic, and Homœopathic, 1; dosimetric, 1; physio-medical, 1; idiopathic, 1; and 121 who either state no school or use obscure expressions.

The ratio of physicians in the State of Mississippi is, therefore, 1 to about every 615 inhabitants.

The President advised the Association to adopt a suitable plan of awarding prizes for meritorious essays, as a means of encouraging original research, and of elevating the literary standard of contributions.

The address was referred to a committee of three, who, after considering the subject, unanimously recommended the appointment of a committee to report, at the next session of the Association, a well-digested scheme of prize essays. The report of this committee was adopted.

#### REPORTS.

DR. J. M. TAYLOR, of Corinth, Chairman, read the report of the *Executive Committee*, which was received and ordered to be spread upon the minutes.

The *Secretary*, DR. T. W. FULLILOVE, made a verbal report. He stated that he had notified Hon. Frank Johnston and Hon. E. Barksdale of their election to honorary membership in the Association. (The former, a prominent member of the legal profession, and the latter, editor of the Jackson *Clarion* and member-elect of Congress, were elected honorary members during last year's session, as a tribute of recognition of the value of the services they had rendered in advancing the interests of the medical profession in this State.) He read the letters of these gentlemen accepting the honor that had been conferred upon them. Each of them paid, in eloquent terms, a warm tribute to the worth of the medical profession. The letters were ordered to be published in the *Transactions*.

DR. ROBERT KELLS, of Jackson, *Treasurer*, read his report, showing all indebtedness paid, and a balance in the treasury amounting to \$364. At Dr. Kells' request, his report was referred to an auditing committee.

DR. B. F. KITTRELL, of Black Hawk, read a report of an interesting case of

#### CHRONIC HYDROCEPHALUS,

which he thought should be placed on record on account of the large dimensions of the head. The history of the case presented nothing peculiar, the head having begun to enlarge a few days after birth. The child (a negro male) is now in his ninth year. The circumference of the head measures twenty-eight inches, and the distance from ear to ear, over the vertex, eighteen inches. Complete ossification has taken place, except at the anterior and posterior fontanelles, and at a small space in the coronal suture on the right of the fontanelle. The child measures thirty-three inches from the acromion process to the sole of the foot.

DR. B. A. VAUGHAN, of Columbus, read a paper on

#### VACCINATION,

in which he argued to sustain the following four propositions:

"1st. That vaccination, if perfect and typical, is as protective to-day against smallpox as it was in the days of Jenner.

"2d. That properly transmitted bovine virus, or humanized virus of not over four cultivations, is as perfect in its protection against variola, whether it come from the 'Jenner' or 'Beaugency' stock.

"3d. That vaccine virus, of many human transmissions, is less protective than bovine virus, or the virus of a few removals from the cow, and will not produce typical vaccina.

"4th. That many failures, as well as many varied departures from typical vaccina, so often observed in the two years past, are due to the quality of and manner of collecting the lymph, as well as, in some measure, to climatic and epidemic causes, and not to vaccina pure."

DR. N. L. GUICE, of Fayette, in the discussion that followed the reading of the paper, remarked that he preferred fresh bovine virus, and insisted that the frequent failures in its use were chiefly due to the fact that most operators, forgetting that it is less soluble than humanized virus, do not take sufficient pains to rub it into the abraded cuticle.

DR. JOHN BROWNRRIGG, of Columbus, remarked that he would not rely upon bovine virus, when, during the prevalence of an epidemic, he should wish to secure the speedy protection of persons who had just been exposed to the disease. He would certainly vaccinate the infant of a variolous mother with humanized virus.



DR. R. S. TOOMBS, of Greenville, had recently used during an epidemic that had prevailed in his vicinity, bovine virus obtained from the farm of Dr. E. L. Griffin, and had been highly pleased with the result, successful vaccinations having been secured in the large majority of instances.

DR. VAUGHAN closed the discussion by insisting upon the importance of revaccination in its technical sense, that is, during the progress of vaccina, the virus should be inserted again and again, until it is proved that the subject of the operation is no longer susceptible to the influence of the virus. He also described the typical scar resulting from vaccination with genuine protective virus, and stated that it was vitally important that such a scar should be obtained.

#### AFTERNOON SESSION.

DR. A. P. SIMS, of Morton, presented before the Association, a case of

#### ARTIFICIAL ANUS

in the person of a negro man, who had received, six years ago, a gunshot wound of the abdomen. The artificial anus was situated in the right iliac region just above the crest of the ilium; this bone was injured, and, during the healing process, portions of it had exfoliated. During the past three years, a portion of what was supposed to be the inverted ilium had been gradually extruded until now ten or twelve inches of the intestine, considerably altered and hypertrophied, were outside the abdomen. The peristaltic motion of the bowel was plainly visible; the orifice, through which the feces escaped, remained at the margin of the wound where the intestine had originally adhered to the abdominal wall.

DR. S. V. D. HILL, of Macon, read an able and exhaustive paper on

#### RECENT ADVANCES IN SURGERY,

in which he culled from the broad field of recent surgical achievement what is most worthy of preservation.

DR. J. E. HALBERT, of Léota Landing, read a paper on

#### MALARIAL HEMATURIA,

in which he stated that he had had a large experience in the treatment of this formidable malady. He sums up his course of treatment as follows: "I first advise prophylaxis; purgatives of calomel in large doses, encouraged by enemata; warm bathing to promote action of the skin; sinapisms to epigastrium—ice, and, if the patient is weak, champagne; carbolic acid, in small doses; digitalis, as a gentle diuretic and heart stimulant; as astringents, gallic acid and ergotine, if the hemorrhage is continuous and exhaustive. In addition, I allow lemonade and bitartrate of potash *ad libitum*, but the sheet-anchor is quinine hypodermically. Nourish by rectum, if necessary, and avoid, if possible, giving medicines, or anything except ice, champagne, and concentrated nourishment by stomach."

#### EVENING SESSION.

DR. W. E. TODD, of Clinton, read a paper on

#### TYPHOID PNEUMONIA,

which gave rise to a lengthy discussion of the general subject of pneumonia, in which Drs. Taylor, Hill, Guice, Sale, McCallum, C. A. Rice, Toombs, Moore, Murry, Vaughan, Ward, Kittrell, and Todd, participated.

DRS. TAYLOR and HILL objected to the term *typhoid* as applied to pneumonia, because it was misleading in its

suggestion of enteric complication. *Asthenic* or *adynamic* was the term which would more properly indicate the true condition. Pneumonia might occur as a *complication* during the progress of typhoid fever.

DR. E. P. SALE, of Aberdeen, protested against the routine treatment of pneumonia. He would be governed by the indications presented in each individual case: to the one, with hot skin, high temperature, and bounding pulse, he would administer aconite in suitable doses; to another, with cool skin and feeble pulse, he would give stimulants and use means to induce reaction; and to the patient, in whom the disease was simply revealing its natural history, with no special symptoms calling for treatment, he would administer nothing whatever.

DR. B. F. KITTRELL, of Black Hawk, apropos of the question whether pneumonia would induce phthisis, related the history of a case still under his observation, in which a boy (white), seventeen years of age, who had previously seemed to be the incarnation of robust health, had been suddenly seized with pneumonia, which was supposed to have originated in his imprudence the day previous to the attack, when he suddenly cooled his person after becoming overheated by unusual physical exertion. The lower lobe of the left lung was the first seat of the inflammation, which, during the latter part of the second week, suddenly extended to the upper lobe, the whole lung becoming completely hepatized. At first, the disease could not be distinguished by the physical signs from ordinary croupous pneumonia, and its true nature was not suspected until, in the third week, there was no indication of resolution in any part of the lung. At the present time, after more than three months have elapsed, while the right lung has remained free from disease, the greater part of the upper and a considerable portion of the lower lobe of the left lung have undergone caseous degeneration, and a large cavity has resulted. Adhesion of the pulmonic and costal pleural surfaces, and perforation of the intercostal spaces have occurred at two points, with local emphysemata resulting; and there is a free discharge of pus from the lower point (which had been aspirated) between the sixth and seventh ribs, below and to the right of the mamma. The father and the mother of the boy, both over fifty years of age, have always enjoyed ordinary health, but upon inquiry, it has been ascertained that several near relatives on the maternal side have died from pulmonary consumption.

All the speakers, who alluded to the use of opium in the treatment of pneumonia, agreed in regard to its inestimable value.

(To be concluded.)

## NEWS ITEMS.

#### NEW YORK.

(From our Special Correspondent.)

THE CODE CONTROVERSY.—The New York Society for the Maintenance of the National Code of Ethics have now enrolled more than 400 physicians residing in the city.

The society organized to prevent the reenactment of the National Code has just published a list of 205 members, of which there are:

Names not in the <i>N. Y. Medical Register</i> .	20
Names not in the <i>Register</i> and not in the	
<i>City Directory</i> . . . . .	15
Dentists . . . . .	2
Veterinary surgeons . . . . .	2

## WHEELING, WEST VA.

(From our Special Correspondent.)

**SMALLPOX.**—Twenty cases of smallpox have just been discovered in Mercer County, West Virginia, and the State Board of Health has been appealed to for help.

## TORONTO.

(From our Special Correspondent.)

**THE TWO SCHOOLS OF MEDICINE** in this city have closed for the session. Nineteen of the students of the Toronto School of Medicine received the degrees of M.D., C.M., from Victoria University, and over twenty students of Trinity Medical School were successful in obtaining their degrees at Trinity University. A good number from both schools presented themselves for degrees at the University of Toronto, where the examinations in medicine are just complete, but the results are not yet known.

**A MEDICAL COLLEGE FOR WOMEN** is about being established here, and the announcement of the Faculty will probably be issued in a few days. It will be the first of the kind in Canada, and the promoters have every confidence in the success of the scheme. Already a fair number of students have signified their intention of attending, some of whom have completed part of their course at various colleges. A large number of sympathizers are said to be willing to give liberal contributions towards the endowment of the college.

**THE ONTARIO MEDICAL ASSOCIATION** is announced to meet in Toronto on the 6th and 7th of June.

**THE STATE MEDICAL SOCIETY OF WISCONSIN.**—The thirty-seventh annual session was held at Milwaukee last Tuesday. In accordance with the expressed wish of many members, no general business was transacted, but a quorum of the Society met and appointed delegates to the approaching session of the American Medical Association, and the Society then adjourned to a later date, to be hereafter announced.

**PUBLIC HEALTH LAW IN WISCONSIN.**—The State of Wisconsin has recently enacted a law which makes obligatory:

- 1st. The organization of a board of health in every town, village, and city in the State, within thirty days after each annual election.
- 2d. The appointment of a health officer by every board of health within ten days after its organization.
- 3d. The report of contagious diseases by all physicians.

**STATE MEDICAL SOCIETY MEETINGS.**—The Indiana State Medical Society meets on the 8th inst.; the Pennsylvania State Medical Society, at Norristown, on the 9th; and the Michigan State Medical Society, at Kalamazoo, on the 9th.

**BELLEVUE HOSPITAL MEDICAL COLLEGE.**—DR. JOSEPH W. HOWE has resigned his professorship of clinical surgery in Bellevue Hospital Medical College, in the following letter to the faculty, which explains his reasons: "Having been informed that unless I could join with the rest of the faculty in supporting the code of the American Medical Association my resignation would be acceptable, I hereby tender my resignation as Professor of Clinical Surgery in Bellevue Hospital Medical College."

**UNIVERSITY OF THE CITY OF NEW YORK.**—DR. J. W. S. ARNOLD has resigned the professorship of physiology

in this institution, and Dr. Lewis A. Stimson has been elected to fill the vacancy.

**DR. FRIEDRICH AHLFELD.**—The Emperor has appointed DR. F. AHLFELD, regular professor in the University of Giessen, to the Chair of Medicine in the Faculty of the University of Marburg.

**PRIZE OF 50,000 FRANCS.**—The French Government has offered a new prize, to be called the VOLTA PRIZE, for the best paper on the "Application of Electricity to the Production of Heat, Light, Chemical or Mechanical Uses, and Use in Telegraphy and Therapeutics." The prize is international, and will be awarded on June 30, 1887.

**HEALTH IN MICHIGAN.**—Reports to the State Board of Health, for the week ending April 21, indicate that influenza, consumption, and whooping-cough have increased, and inflammation of the brain and diarrhoea have decreased, in area of prevalence.

Including reports by regular observers and by others, diphtheria was reported present during the week ending April 21 and since at thirteen places, scarlet fever at eighteen places, and measles at twenty-two places.

Four cases of measles came with immigrants arriving at Port Huron April 20.

**OBITUARY RECORD.**—PROF. MAURICE KRISHABER, the eminent laryngoscopist, has recently died, in Paris, of typhoid fever. Thoroughly broken down by constant anxiety during the recent illness of Mme. Krishaber, the shock of her death was too much for him, and he succumbed to the disease which developed in his overtaxed system.

In laryngology, Prof. Krishaber was an original and widely known worker, and was the author of valuable works and papers, relating not only to this special department, but to other branches of medicine, notably in the department of diseases of the nervous system. He was junior editor of the *Annales des Maladies de L'Oreille, du Larynx*, etc., and contributed to it some of its most valuable papers.

The sudden death of DR. BLOCK, of Dantzig, the well-known experimenter in lung resections, is announced.

*União Médica* announces the recent death of DR. CYPRIANO BARBOZA BETTAMIO, Professor of Laryngology in the Rio de Janeiro Polyclinic.

#### OFFICIAL LIST OF CHANGES OF STATIONS AND DUTIES OF OFFICERS OF THE MEDICAL DEPARTMENT, U. S. ARMY, FROM APRIL 23 TO APRIL 30, 1883.

CLEARY, PETER J. A., *Major and Surgeon*.—So much of Par. 10, S. O. 273, November 23, 1882, from this office, as directs him (then Captain and Assistant Surgeon) to report in person to the Commanding General, Department of Dakota, is revoked, and, upon the expiration of his present sick leave of absence, to report in person for assignment to duty in the Department of the Missouri.—S. O. 95, A. G. O., April 25, 1883.

HOPKINS, WM. E., *First Lieutenant and Assistant Surgeon*.—Now on leave of absence in New York City, to be relieved from duty in the Department of the East, and assigned to duty in the Department of Arizona.—Par. 7, S. O. 95, A. G. O., April 25, 1883.

THE MEDICAL NEWS will be pleased to receive early intelligence of local events of general medical interest, or of matters which it is desirable to bring to the notice of the profession.

Local papers containing reports or news items should be marked. Letters, whether written for publication or private information, must be authenticated by the names and addresses of their writers—of course not necessarily for publication.

All communications relating to the editorial department of the NEWS should be addressed to No. 1004 Walnut Street, Philadelphia.